

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,066 DTD \_\_\_\_\_

CHANGE NO. 71

MODEL: 30-5 (Convair "600")

TITLE Specification Administrative Change (Flight and Navigational Instruments - Interconnecting, Revision of)

ORIGIN: American Airlines/Convair/Sperry Mock-Up Meeting of 19 May 1959

REASON FOR CHANGE: To conform with Sperry Installation Recommendations

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE \_\_\_\_\_

CONVAIR: SD

American Airlines Inc.  
Change No. 71

Title: Specification Administrative Change (Flight and Navigational Instruments - Interconnecting, Revision of)

Origin: American Airlines/Convair/Sperry Mock-Up Meeting of 19 May 1959

Reason for Change: To conform with Sperry Installation Recommendations

Description of Change:

Page 54, Paragraph 3.14.2.2 COURSE DEVIATION INDICATOR:

Revise subparagraph "b" to read as follows:

"Compass System No. 2 (guarded switch required) or Compass System No. 1, which includes the heading inputs to the compass dial, course select synchro, and pre-select heading synchro for either position of the switch."

Page 54, Paragraph 3.14.2.2.2

Revise subparagraph "b" to read as follows:

"Compass System No. 1 which includes the heading input to the compass dial only; the course select synchro and the pre-select heading synchro are not used."

Page 55, Paragraph 3.14.2.4 FLIGHT STEERING COMPUTER:

Revise subparagraph "a" to read as follows:

"No. 1 Vertical Gyro or No. 2 Vertical Gyro via the bootstrap autosyn in the pilot's horizon director indicator (same switch as used for alternate horizon)."

Page 56, Paragraph 3.14.2.6 FLIGHT STEERING COMPUTER MODE SELECTION:

Revise the first line to read as follows:

"There shall be two mode selector switches on the pilot's instrument panel and an indicator light on the copilot's instrument panel as follows:"

Delete subparagraph "a" in its entirety.

Not to appear in Specification language. The above change is actually a change to RFC 55-14-27.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,065 DTD \_\_\_\_\_

CHANGE NO: 70A

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Retracting, Extending and Door Locking Systems, Revision of)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simmons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

American Airlines Inc.  
Change No. 70A

Title: Specification Administrative Change (Retracting, Extending and Door Locking Systems, Revision to)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 23, Paragraph 3.8.2.5 RETRACTING, EXTENDING AND LOCKING SYSTEMS:

Change the paragraph to read as follows:

"Landing gear retraction shall be accomplished hydraulically, including opening and closing of doors in a maximum of ten seconds, with normal four-engine operation up to approximately 200 knots indicated, standard day conditions. In the event of failure of one engine prior to landing gear retraction, the landing gear shall retract in a maximum of 12 seconds with standard day conditions and with a maximum airplane load factor of 1.2g."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER American Airlines Inc.

MCL 60,062 DTD \_\_\_\_\_

CHANGE NO. 64A

MODEL: 30-5 (Convair "600")

TITLE: **Specification Administrative Change (VHF Navigation Antenna, Change from "Flush" to External")**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To improve the structural integrity of the vertical stabilizer**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING \_\_\_\_\_  
NON-RECURRING \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE \_\_\_\_\_

Title: Specification Administrative Change (VHF Navigation Antenna,  
Change from "Flush" to "External")

Origin: Convair initiated

Reason for Change: To improve the structural integrity of the ver-  
tical stabilizer

Description of Change:

Page 4, Paragraph 3.1.1 - PERFORMANCE:

Revise the second sentence to read as follows:

"These guarantees are based upon ICAO standard atmosphere ex-  
cept as noted and the configuration described herein, with doors  
and windows closed, with three anti-collision lights, one VHF  
communication antenna, one VHF navigation antenna, one ATC radar  
beacon stub antenna and two ~~DMET~~ stub antennas installed".

Page 79, Paragraph 3.17.3.4.2 - ANTENNA:

Revise the sentence to read as follows:

"One VHF navigation antenna of the external horizontal fairing -  
type shall be installed on the vertical stabilizer for reception  
of the VHF navigation and runway localizer signals".

Page 79a, ANTENNA ARRANGEMENT

Above illustration will be revised to show an external, horizon-  
tal VHF Navigation Antenna in lieu of a flush type antenna.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



[illegible]

MODEL: 30-5 (Convair "600")

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

*[The page contains faint, illegible markings and bleed-through from the reverse side.]*

Title: Specification Administrative Change

Origin: Comair Request

Reason for Change: RFC No. 55-20-23 which is now, not applicable to the presently designed Model 30 Air Conditioning System.

55-20-23

Description of Change:

Page      RFC      Paragraph

00    55-20-23    3.20.1.3    TEMPERATURE VARIATION:

Change the first sentence of the paragraph:

"During steady state conditions with no passengers aboard, and with cabin air distribution control set for all first class seating, the free air temperature in the passenger seating area shall not vary more than 5°F from maximum to minimum at arm rest level."

To read:

"During steady state conditions with no passengers aboard, the free air temperature in the passenger seating area shall not vary more than 5°F from maximum to minimum at arm rest level."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,049 DTD 10 April 1959

CHANGE NO.: 2

MODEL: 30-5 (Convair "600")

TITLE: Miscellaneous Specification Change RFC's American Airlines Model 600

ORIGIN: As noted on RFCs

REASON FOR CHANGE: For the purpose of incorporating the following specification change RFC's into a commercial change proposal for American Airlines final approval

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
0	0	0	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Miscellaneous Specification Change RFC's American Airlines  
Model 600

Origin: As noted on RFCs

Reason for Change: For the purpose of incorporating the following  
specification change RFC's into a commercial  
change proposal for American Airlines final  
approval.

55-7-5	555-22-4
555-8-26	555-APP-43
555-12-92	55-F-1
555-17-43	55-S-1

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
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26	555-8-26	3.8.4.7 STEERING CONTROL:
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Change the first three sentences of paragraph to read:

"A hydraulically-operated steering unit, with a powered steering range of 70 degrees +5 degrees each side of center, shall be installed on the nose gear. The geometrical center of the turning radius is 23 feet, 2.07 inches outboard of the airplane centerline and is located on a line through the centerline of the main landing gear oleos. The radius of the wing tip about the turning point is 87 feet, 10.36 inches."

43	555-12-92	3.12.12.1 IN-LINE COMBUSTOR STARTING SYSTEM:
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Change:

"A remote reading high pressure air gage for each portion of the air supply system shall be located at the flight engineer station."

To:

"A remote reading high pressure dual air gage for the air supply system shall be located at the flight engineers station."



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
77	555-17-43	3.17.2.3.6 PUBLIC ADDRESS SYSTEM:  <u>Change</u> the seventh sentence of paragraph to read:  "A handset and microphone shall be installed at the aft end of the pedestal."  99 555-22-4 3.22.2 JACKING PROVISIONS:  <u>Change</u> the last sentence of the paragraph to read:  "External fuselage and wing jack pad adapters shall conform to MS 33559, Type II, on mating surface to ground jack assembly."  A-12 555-12-92 APPENDIX I-C HYDRAULIC AND PNEUMATIC:  <u>Add:</u>  "1 Indicator, Air Starter Bottles (Dual)."  A-24 555-APP-43 APPENDIX I-C FURNISHINGS:  <u>Change:</u>  "2 Seat, Pilots' (Including Fabric, Belt and Harness)" Weber "1 Seat, Flight Engineer's (Including Fabric & Harness)" Weber  <u>To:</u>  "2 Seat, Pilots' (Including Fabric, Belt & Harness)" Aircraft Mechanics "1 Seat, Flight Engineer's (Including Fabric, Belt & Harness)" Aircraft Mechanics

The following RFCs have been incorporated into the finish Spec. 22-00004.

55-7-5  
55-7-1

RFC No. 55-8-1 has been incorporated into the finish Spec. 22-00010.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,050 DTD 10 April 1959

CHANGE NO. 61

MODEL: 30-5 (Convair "600")

<b>TITLE:</b> <b>Specification Change RFC's - American Airlines Model 600 Interior</b>		
<b>ORIGIN:</b> <b>As noted on RFC's</b>		
<b>REASON FOR CHANGE:</b> <b>See inside sheet</b>		
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <div style="text-align: center;">0</div>	OPER. WT. EMPTY <div style="text-align: center;">0</div>	0  INCH LB.
<b>EFFECT ON GUARANTEED PERFORMANCE:</b> <b>None</b>		
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		ENGINEERING APPROVAL
<b>LATEST DATE OF ACCEPTANCE:</b>		<b>AIRPLANES AFFECTED:</b>
<b>SPECIAL PROVISIONS:</b>		<b>EFFECT ON PRICE PER AIRPLANE:</b> RECURRING: _____ NON RECURRING: _____ TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

By: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Change RFC's - American Airlines Model 600 Interior

Origin: As noted on RFC's

Reason for Change: For the purpose of incorporating the following specification change RFC's relating to the American Airlines Model 600 interior into a commercial change proposal for American Airlines final approval.

55-19-59	555-19-121
55-19-93	555-19-133
555-19-107	555-APP-40
555-19-114	555-APP-42
555-19-117	

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
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82	555-19-117	3.19.1.2 CONVERTIBILITY:
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Add the following to the paragraph:

"The standard passenger seating and accommodation provisions shall be based on a 38-inch spacing. This interior arrangement shall be designed to provide spacing for 34 inches or above, except that new hat rack spacer panels shall be required for spacings above 40 inches and hat rack design shall be based on a maximum pod spacing of 42 inches without the use of additional supporting inserts. It shall be possible to locate the seats and their hat rack facilities in any position, within one-inch increments and within the limitations, of fixed cabin bulkheads and emergency exits. Additional passenger accommodations required as a result of converting to less than 38-inch or hat rack panels required for converting to greater than 40-inch spacing shall be classed as alternate load equipment. The airplane shall be delivered in the standard configuration.

82	555-19-114	3.19.2.1.1 BUFFET:
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Add the following to the paragraph:

"The inboard face of the forward buffets shall be located at approximately buttock line 15.5 right hand, the inboard face of No. 3 Buffet shall be located at approximately buttock line 15.0 right hand and the inboard face of No. 4 shall be located at approximately buttock line 13.5 right hand."

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
86	555-19-107	3.19.2.7.3 CERTIFICATE HOLDER:  <u>Change</u> paragraph to read:  "One transparent airworthiness certificate holder shall be installed on the aft face of the pilots' partition near the top. This holder shall be visible from the aisle area".
87	55-19-59	3.19.2.7.12 CREW IDENTIFICATION NAMEPLATE HOLDER:  <u>Add</u> new paragraph as follows:  "A customer furnished crew identification nameplate holder shall be provided on the aft face of the forward left hand coat compartment at eye level".
87	55-19-93	3.19.2.7.15 TIME TABLE STOWAGE:  <u>Add</u> new paragraph as follows:  "Stowage space for airline time tables shall be provided on the inboard side of the bulkhead stowage bin located on the forward right hand side of the passenger compartment".
87	555-19-121	3.19.3.2 FLOOR COVERING:  <u>Add</u> the following to the paragraph:  "The floor covering in each buffet and entrance area shall be readily removable, pile type carpeting".
90	555-19-133	3.19.4.3.2 WATER FIRE EXTINGUISHER:  <u>Change</u> the first sentence to read as follows:  "Three hand operated, water type fire extinguishers shall be provided, one in the forward entrance area and two on the forward face of the left hand rear compartment bulkhead".
A-1	555-App-42	Appendix I-A FURNISHINGS:  <u>Change:</u> "4 Buffets (including provisions for Buyer Furnished items noted in Appendix I-B)".



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
A-1	555-APP-42	Appendix I-A FURNISHINGS (Cont)  <u>To:</u> "4 Buffets (including provisions for Buyer furnished items noted in Appendix I-B) Vacuum cleaner outlets of 115v 400 cycle rating shall be included in the buffets, as required".
A-1	55-19-59	Appendix I-A FURNISHINGS:  <u>Add:</u> "1 Crew Nameplate Holder"
A-25	555-19-121	Appendix I-C FURNISHINGS-UNIT WEIGHTS:  <u>Change</u> the first two items as follows:  "Cabin, Buffet, and Entry Way Floor Covering 58.0 oz/sq yd  Pilot Compartment, Coat Compartment and Lavatory Floor Covering". 32.5 oz/sq yd
26	555-APP-40	Appendix I-C OXYGEN EQUIPMENT:  <u>Change:</u>  "3 *Bottle, Portable Oxygen Scott 5600 45.0 (310 Liter)".  "1 *Bottle, Portable Oxygen Scott 5500 15.0  <u>To:</u>  "1 *Bottle, Portable Oxygen Scott 5600A-3F-2A 15.0 (310 Liter)".  "3 *Bottle, Portable Oxygen Scott 5500-3-FG2-A 45.0
Effect on Weight Empty: 0 Effect on Balance: 0 Effect on Performance: None		

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,109 DTD Rev. 20 May 1959

CHANGE NO: 60A

MODEL: 30-5 (Convair "600")

TITLE: Portable Oxygen Bottles, Relocation of

ORIGIN: RFC No. 555-19-132 - American Airlines/Convair Meeting of 19 May 1959


REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>11.0 lb</u>	<u>16.0 lb</u>	<u>7,792</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None      Effect on O.W.E. C.G.: Negl.

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: \_\_\_\_\_

AIRPLANES AFFECTED: \_\_\_\_\_

SPECIAL PROVISIONS: \_\_\_\_\_

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Portable Oxygen Bottles, Relocation of

Origin: RFC No. 555-19-132 - American Airlines/Convair Meeting of  
19 May 1959

Reason for Change: Customer request.

Description of Change:

Page 91, Paragraph 3.19.5.6 PORTABLE BOTTLES:

Change the second sentence to read as follows:

"Four 310 liter continuous flow portable oxygen bottles shall be provided, one located within the bulkhead stowage compartment on the forward right hand side passenger compartment, two located on the forward face of the right hand movable coat divider, and one inside of the rear coat compartment."

Page A-26, APPENDIX I-C, OXYGEN EQUIPMENT:

Change:

"3 \*Bottle, Portable Oxygen (310 liter) Scott 5600 45.0"

To:

"4 \*Bottle, Portable Oxygen (310 liter) Scott 5600 60.0"

Effect on Weight Empty: ~~1~~1.0 pound  
Effect on Operating Weight Empty: ~~16~~16,0 pounds  
Effect on Balance: ~~7~~7,792 inch-pounds  
Effect on Performance: None

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

MODEL: 30-5 (Convair "600")

DATE: \_\_\_\_\_



Title: Magazine Rack, Relocation of

Origin: RFC No. 555-19-125

Reason for Change: Customer request

Description of Change:

Page 87, Paragraph 3.19.2.7.8 MAGAZINE RACKS:

Change the paragraph to read as follows:

"A magazine rack shall be provided in the forward entrance area."

Page A-24, APPENDIX I-C FURNISHINGS:

Change: "3 Rack, Magazine"

To: "1 Rack, Magazine"

Effect on Weight Empty: -11.0 lbs  
Effect on Balance: -15,818 in/lbs  
Effect on Performance: None

File

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,056 DTD \_\_\_\_\_

CHANGE NO: 58

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Galley Weights, Revision of)

ORIGIN: American Airlines and Convair Meeting at Convair 20 March 1959

REASON FOR CHANGE: Customer Request

### EFFECT ON WEIGHT \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

### EFFECT ON BALANCE \*

0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:  
This CCP supercedes the subject matter  
previously incorporated by CCP No. 14

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Galley Weights, Revision of)

Origin: American Airlines and Convair Meeting at Convair 20 March 1959

Reason for Change: Customer Request

Description of Change:

Page 12, Paragraph 3.4.4 LOADS:

Change the following buffet weight figures:

<u>From:</u>	"Buffet No. 1	700.0 lb
	Buffet No. 2	750.0 lb
	Buffet No. 3	750.0 lb
	Buffet No. 4	650.0 lb"

<u>To:</u>	"Buffet No. 1	860.0 lb
	Buffet No. 2	900.0 lb
	Buffet No. 3	900.0 lb
	Buffet No. 4	860.0 lb"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,047 DTD \_\_\_\_\_

CHANGE NO. 57

MODEL: 30-5 (Convair "600")

TITLE: In-Line Combustors, Deletion of

ORIGIN: Convair initiated

REASON FOR CHANGE:

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

O.W.E. CG = +0.5% M.A.C.

-632.0 lbs

-745.0 lbs

-511,571 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

This CCP cancels RFC's 5-12-13, 5-12-27 and 5-12-87

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: In-Line Combustor, Deletion of

Origin: Convair initiated

Reason for Change:

Description of Change:

Page 42a, ENGINE STARTING SYSTEM:

Delete the following from the bottom of the above illustration:

"(to be revised to show in-line combustor system)"

Page 43, Paragraph 3.12.12.1 - IN-LINE COMBUSTOR STARTING SYSTEM:

Add the following after the paragraph title: "(DELETED)," and delete the entire paragraph

Page 51, Paragraph 3.15.2 - PNEUMATIC SYSTEM - HIGH PRESSURE:

Add the following after the paragraph title: "(Not Applicable)"

Delete the following paragraphs in their entirety:

"3.15.2.1 - DESCRIPTION AND COMPONENTS:  
3.15.2.1.1 - COMPRESSOR OPERATION  
3.15.2.1.2 - AIR STORAGE BOTTLES  
3.15.2.1.3 - WATER SEPARATION"

Page A-3, APPENDIX I-C, PROPULSION EQUIPMENT:

Delete the following item from the Description List:

"2 In-Line Combustor	AIRResearch	352390	16.5"
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Page A-20, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT:

Delete the following from the page:

"PNEUMATIC STARTER

1 Air Compressor (6 to 8 CFM)  
6 Air Storage Bottles (2130  
cubic-inch capacity)

Effect on Operating Weight Empty:	-745.0 lbs
Effect on Weight Empty:	-632.0 lbs
Effect on Balance	-511,571 in/lbs
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,060 DTD \_\_\_\_\_

CHANGE NO: 56A

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Stabilizer Center Section Components, Change to)

ORIGIN: Convair initiated.

REASON FOR CHANGE: Revision to R.F.C. No. 55-23-2, to remove horizontal stabilizer center section it is necessary to drill out rivets to remove fuselage skins.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>0</u>	OPER. WT. EMPTY <u>0</u>	<u>0</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 56A

Title: Specification Administrative Change (Stabilizer Center Section Components, Change to)

Origin: Convair initiated.

Reason for Change: Revision to R.F.C. No. 55-23-2, to remove horizontal stabilizer center section it is necessary to drill out rivets to remove fuselage skins.

Description of Change:

Page 100, Paragraph 3.23.2 EQUIPMENT INTERCHANGEABILITY:

Under "a. Interchangeable Parts", delete the following:

"Horizontal Stabilizer Torque Box" and replace with

"\*Horizontal Stabilizer Center Section".

At bottom of page add the following note:

"\*Horizontal stabilizer center section shall be interchangeable, however some body structure in local areas must be removed in order to replace this assembly." For this reason, demonstration of interchangeability is waived on this item."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,045 DTD \_\_\_\_\_

CHANGE NO: 55

MODEL: 30-5 (Convair "600")

TITLE: Ice Detector Probes, Relocation of from Fuselage to Inboard Engine Air Inlets

ORIGIN: Telecon AAL (OLSON) to Convair (SAVARD/McDONALD) on 24 March 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+2.0 lbs	+2.0 lbs	+1,280 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Ice Detector Probes, Relocation of from Fuselage to Inboard  
Engine Air Inlets

Origin: Telecon AAL (OLSON) to Convair (SAVARD/McDONALD) on 24 March 1959

Reason for Change: Customer request

Description of Change:

Page 97, Paragraph 3.20.2.5 - ICE-DETECTOR SYSTEM:

Revise the first four sentences in paragraph as follows:

From: "Manual control only of the airplane and engine anti-icing systems shall be provided. An ice detector system shall be installed with warning light indication in the cockpit. If possible, ice detector units will be installed so as to be visible from the cockpit. Ice detector units will not be installed in the engine inlet ducting."

To: "Manual control only of the airplane and engine anti-icing systems shall be provided. An ice detector system shall be installed with warning light indication in the cockpit. Two detector units shall be installed, one in each of the inboard engine inlet ducts."

Page A-21, APPENDIX I-C, PRESSURIZATION, ANTI-ICING, AND AIR CONDITIONING  
EQUIPMENT:

Revise the below item in the Description List as follows:

<u>From:</u> "4 Detector, Ice Warning	Goodyear	3065-1802
	Can. Appl.	
	Res. Ltd.	C.A.R.L. Type
		T260-MK12A"

<u>To:</u> "2 Detector, Ice Warning	Goodyear	3065-1802
	Can. Appl.	
	Res. Ltd.	C.A.R.L. Type
		T260-MK12A"

Page 95a, AIR CONDITIONING PRESSURIZATION SYSTEM:

Revise above illustration to show effects of this proposal

Effect on Weight Empty: +2.0 lbs  
Effect on Balance: +1,280 in/lbs.  
Effect on Performance: None

The following shall not appear in the Specification language:

The language effects of RFC No. 55-20-34, and as submitted by CCP No. 15, are included in this proposal which revises the third and fourth sentences thereof.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,054 DTD \_\_\_\_\_

CHANGE NO. 54

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Increase from two to three anti-collision lights)

ORIGIN: Convair initiated

REASON FOR CHANGE: To comply with FAA Requirements

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \* None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

American Airlines Inc.  
Change No. 54

Page 1 of 1

Title: Specification Administrative Change (Increase from two to three anti-collision lights)

Origin: Convair initiated

Reason for Change: To comply with FAA Requirements

Description of Change:

Page 61, Paragraph 3.16.8.1.4 - ANTI-COLLISION LIGHTS:

Revise the first sentence to read as follows:

"The airplane shall be equipped with three anti-collision lights, one providing light for the upper hemisphere and two for the lower hemisphere."

Page A-14, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Change the below item in the Description List as follows:

From: "1 Anti-Collision Light - Lower Grimes Mfg. 40045-21-7079"

To: "2 Anti-Collision Light - Lower Grimes Mfg. 40045-21-7079"

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,053 DTD \_\_\_\_\_

CHANGE NO: 53

MODEL: (600) 30-5

TITLE Specification Administrative Change (C.G. Limits Chart Revision of)

ORIGIN Convair initiated and American Airlines letter to Convair dated 25 March 1959

REASON FOR CHANGE: To incorporate a more current C.G. Limits Chart into the specification

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE \_\_\_\_\_

CONVAIR: SD

American Airlines Inc.  
Change No. 53

Title: Specification Administrative Change (C. G. Limits Chart  
Revision of)

Origin: Convair initiated and American Airlines letter to Convair  
dated 25 March 1959

Reason for Change: To incorporate a more current C. G. Limits Chart  
into the specification

Description of Change:

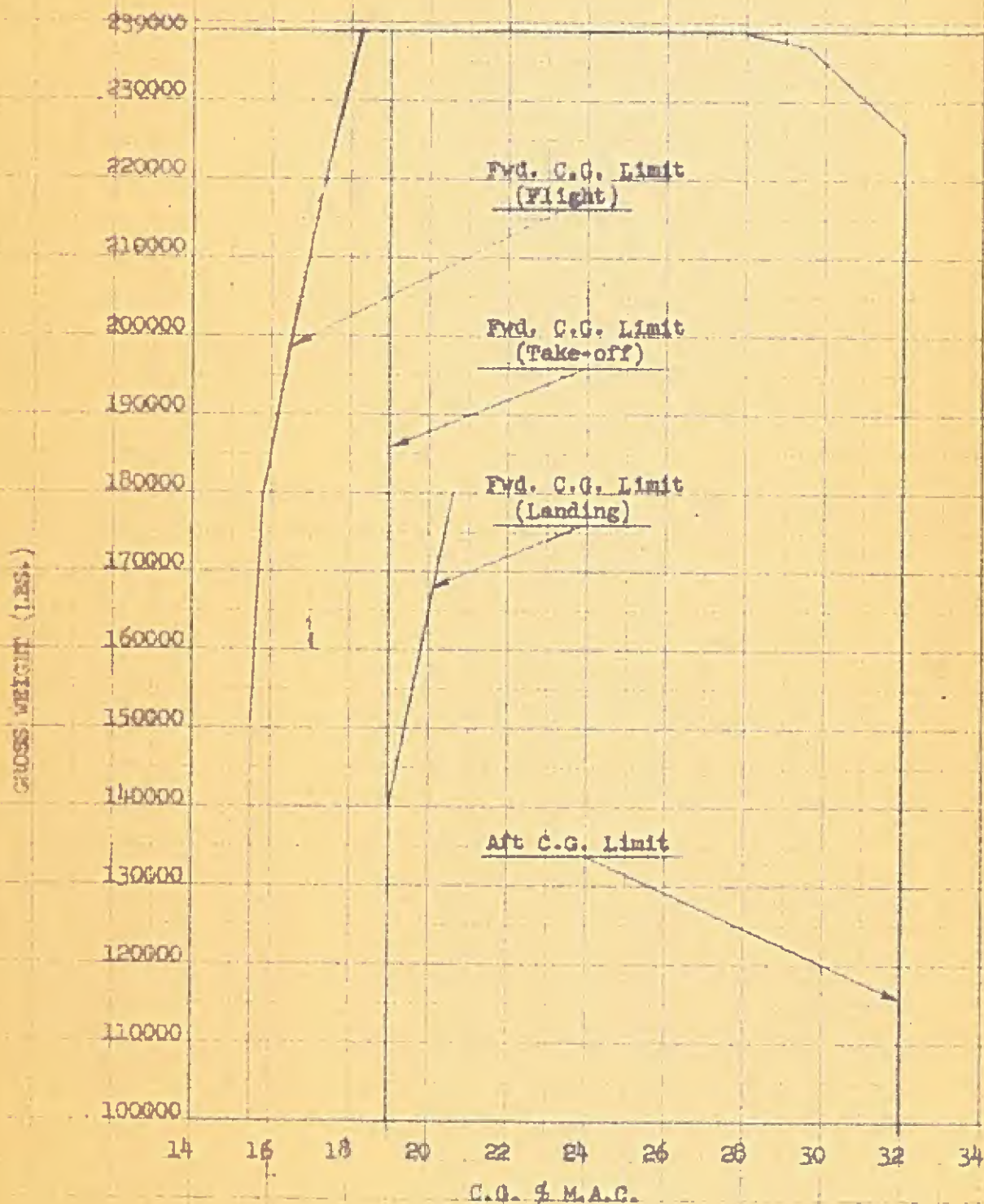
Page 7A, Center of Gravity Limits:

"This proposal has no effect on the specification language but  
revises the C. G. Limits Chart as shown on the attached illustration."

Enclosure (A) One copy of C. G. Limits Chart

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



CENTER OF GRAVITY LIMITS



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,047 DTD \_\_\_\_\_

CHANGE NO. 52

MODEL: 30-5 (Convair "600")

TITLE: Altimeter Revision and Relocation of Autopilot Trim Indicator

ORIGIN: RFC No. 555-14-31

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>45.0 lbs.</u>	<u>45.0 lbs.</u>	<u>41,020</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Altimeter Revision and Relocation of Autopilot Trim Indicator

Origin: RFC No. 555-14-31

Reason for Change: Customer request

Description of Change:

Page 44, Paragraph 3.14.1.1 - PILOT'S INSTRUMENTS:

Change the below item as follows:

From: "One altimeter"  
To: "One altimeter\*"

Add the following item to the instrument list:

"One trim indicator, autopilot"

Add the following note to the bottom of the page:

"\*Note: At the pilot's panel and the center panel tubing and wiring shall be provided to alternate the corrected altimeter or the uncorrected altimeter. It shall be possible to interchange the altimeter between the pilot panel and center panel by relocating one adapter plate (if necessary), transferring the electrical harness and interchanging the static supply hose."

Page 45, Paragraph 3.14.1.3 - CENTER PANEL INSTRUMENTS:

Add the following item to the instrument list:

"One altimeter\*"

Delete the following item from the instrument list:

"One trim indicator, autopilot"

CONVAIR: SD

American Airlines Inc.  
Change No. 52

Page 2 of 2

Add the following note to the bottom of the page:

\*Note: At the pilot's panel and the center panel tubing and wiring shall be provided to alternate the corrected altimeter or the uncorrected altimeter. It shall be possible to interchange the altimeter between the pilot panel and center panel by relocating one adapter plate (if necessary), transferring the electrical harness and interchanging the static supply hose."

Page A-I, APPENDIX I-A, BUYER FURNISHED - CONVAIR INSTALLED

Add the following items under "FURNISHINGS"

"1 Altimeter (three-pointer-type)	Kollsman	671CPX-10-051
or		
1 Altimeter (drum-pointer-type)	Kollsman	A28586-10-001"

Effect on Weight Empty:	45.0 lbs
Effect on Balance:	41,020 in/lbs
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,108 DTD \_\_\_\_\_

CHANGE NO: 51

MODEL: 30-5 (Convair "400")

TITLE: Coat Compartment Stowage Bins and Miscellaneous Stowage, Installation of

ORIGIN: RFC No. 555-19-135

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>+7.0 lbs.</u>	<u>+7.0 lbs.</u>	<u>+6,538</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE. \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Coat Compartment Stowage Bins and Miscellaneous Stowage,  
Installation of

Origin: RFC No. 555-19-135

Reason for Change: Customer request

Description of Change:

Page 85, Add the following new paragraph to the page, after paragraph  
3.19.2.3:

"3.19.2.3.1 COAT COMPARTMENT STOWAGE BINS: Stowage bins shall  
be provided above each fixed coat compartment.  
Each fixed coat compartment stowage bin shall be  
provided with a horizontal shelf to divide the bin  
into an upper and lower section. Provisions for  
stowage of two Customer furnished first aid kits  
shall be made in stowage bins."

Page 87, Add the following new paragraph to the page, after paragraph  
3.19.2.7.7:

"3.19.2.7.7.1 MISCELLANEOUS STOWAGE: A miscellaneous stowage  
compartment shall be provided on the aft face of  
the forward right hand passenger bulkhead. The  
compartment shall be equipped with a hinged door  
on the inboard side and shall incorporate a shelf  
approximately 18 inches above the floor of the bin."

Page A-1, APPENDIX I-A, BUYER FURNISHED - CONVAIR INSTALLED:

Add the following item under "FURNISHINGS"

"\*2 First Aid Kits 5.0"

Add the following to the bottom of Page A-1

"\*Fixed Useful Load Item"

Effect on Weight Empty: +7.0 lbs  
Effect on Balance: +0.538 in/lbs  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,107 DTD \_\_\_\_\_

CHANGE NO: 50

MODEL: 30-5 (Convair "600")

TITLE: Forward and Aft Lavatory Equipment, Revision to

ORIGIN: RFC No. 555-19-131

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
<u>134.0 lbs</u>	<u>134.0 lbs</u>	<u>137,366</u>	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:  
CCP No. 49 (Supersedes RFC No. 55-19-97)

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Forward and Aft Lavatory Equipment, Revision to

Origin: RFC No. 555-19-131

Reason for Change: Customer request

Description of Change:

Page 85, Paragraph 3.19.2.2.3 - MISCELLANEOUS LAVATORY EQUIPMENT:

Delete the paragraph and items listed thereunder and substitute the following:

"The following equipment shall be installed in each forward and aft lavatory:

1. One glass mirror (over wash basin)
2. One coat hook (folding-type)
3. One assist handle
4. One cabin attendant call button (identified)
5. One electric razor outlet (115v d-c, identified)
6. One bar soap dispenser
7. Four linen towel dispensers in each forward lavatory and three linen towel dispensers in each aft lavatory
8. One towel disposal tray
9. O2 mask outlet and stowage for two masks (automatic)
10. One toilet paper dispenser (roll-type)
11. One "Kleenex" dispenser
12. One sanitary napkin dispenser in each forward lavatory and two sanitary napkin dispensers in each aft lavatory
13. One ash tray (identified)
14. One "Return to Cabin" sign (illuminated)
15. One "Lock Door" placard
16. One used razor blade disposal (identified)
17. Two "WASH-N-DRI" dispenser
18. One individual air outlet
19. One plastic toilet cover and seat (commercial)
20. Stainless steel counter and wash bowl (built in soap tray)
21. Hot and cold faucets and lever operated drain stopper
22. One miscellaneous stowage space
23. One placard "ASK STEWARDESS FOR RAZOR"



CONVAIR: SD

American Airlines Inc.  
Change No. 50

Page 2 of 2

Effect on Weight Empty:	434.0 lbs
Effect on Balance:	437,366 in/lbs
Effect on Performance:	None

The following shall not appear in the specification language:

Item 20 of above list assumes prior acceptance of CCP No. 49.  
The information sketches for arrangement of the above items were submitted with RFC No. 555-19-131.  
Lavatory lighting to be determined at time of mock-up and will be the subject of a separate CCP, if required.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,106 DTD \_\_\_\_\_

CHANGE NO: 49

MODEL: 30-5 (Convair "600")

<b>TITLE</b> <b>Stainless Steel Wash Basin, Counter Top and Splash Area, Installation of</b>		
<b>ORIGIN:</b> <b>RFC No. 555-19-116</b>		
<b>REASON FOR CHANGE:</b> <b>Customer request</b>		
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY  <div style="text-align: center;">0</div>	OPER. WT. EMPTY  <div style="text-align: center;">0</div>	<div style="text-align: center;">0</div> <div style="text-align: right;">INCH LB.</div>
<b>EFFECT ON GUARANTEED PERFORMANCE: *</b> <b>None</b>		
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		ENGINEERING APPROVAL
<b>LATEST DATE OF ACCEPTANCE:</b>		<b>AIRPLANES AFFECTED:</b>
<b>SPECIAL PROVISIONS:</b>		<b>EFFECT ON PRICE PER AIRPLANE:</b> RECURRING: _____ NON-RECURRING: _____ TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 49

Page 1 of 1

Title: Stainless Steel Wash Basin, Counter Top and Splash Area,  
Installation of

Origin: RFC No. 555-19-116

Reason for Change: Customer request

Description of Change:

Page 84, Paragraph 3.19.2.2. - LAVATORIES:

Add the following sentence to the paragraph, after the third sentence:

"The wash basin, counter top and splash area shall be of stainless steel."

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,105 DTD \_\_\_\_\_

CHANGE NO: 48

MODEL: 30-5 (Convair "600")

TITLE: Buffet Curtains, Installation of

ORIGIN: RFC No. 55-19-60

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>733.0 lbs</u>	<u>733.0 lbs</u>	<u>730,030</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: \_\_\_\_\_

AIRPLANES AFFECTED: \_\_\_\_\_

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 48

Title: Buffet Curtains, Installation of

Origin: RFC No. 55-19-60

Reason for Change: Customer request

Description of Change:

Page 82 Cont., Paragraph 3.19.2.1 - BUFFET INSTALLATION:

Add the following sentence to the end of paragraph:

"Curtains shall be provided between buffet units to close off the working area. This shall be applicable for both forward and aft buffet installations."

Effect on Weight Empty:	433.0 lbs
Effect on Balance:	430,030 in/lbs
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,104 DTD \_\_\_\_\_

CHANGE NO: 47

MODEL: 30-5 (Convair "600")

TITLE: Passenger Call Switches and Call Lights, Revision to

ORIGIN: RFC No. 555-16-68

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>4.0 lbs</u>	<u>4.0 lbs</u>	<u>3,716</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 47

Title: Passenger Call Switches and Call Lights, Revision to

Origin: RFC No. 555-16-68

Reason for Change: Customer request

Description of Change:

Page 67, Paragraph 3.16.11.4.1 - PASSENGER CALL SWITCHES:

Revise the second sentence to read as follows:

"The call switches shall be flush-mounted and shall actuate a jewelled light on the inboard face of each passenger service escutcheon. The call switches shall be distinguishable from the reading light switch."

Page A-13, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Add the following two items to the Description List:

"AR Passenger Call Switches  
AR Passenger Call Lights (Jewelled)"

Effect on Weight Empty:	4.0 lbs
Effect on Balance:	3,716 in/lbs
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,101 DTD \_\_\_\_\_

CHANGE NO: 44

MODEL: 30-5 (Convair "600")

TITLE: Footrest, Attached Ratchet-Type, Passenger Seat, Installation of

ORIGIN: American Airlines/Convair Meeting in New York during week of  
23 March 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
+82.0 lbs	+82.0 lbs	+74,620	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Footrest, Attached Ratchet-Type, Passenger Seat, Installation of

Origin: American Airlines/Convair Meeting in New York during week of  
23 March 1959

Reason for Change: Customer request

Description of Change:

Page 82, Paragraph 3.19.1.1.5 - PASSENGER SEATS:

Revise the sixth sentence as follows:

From: "Each passenger seat shall be equipped with a footrest."

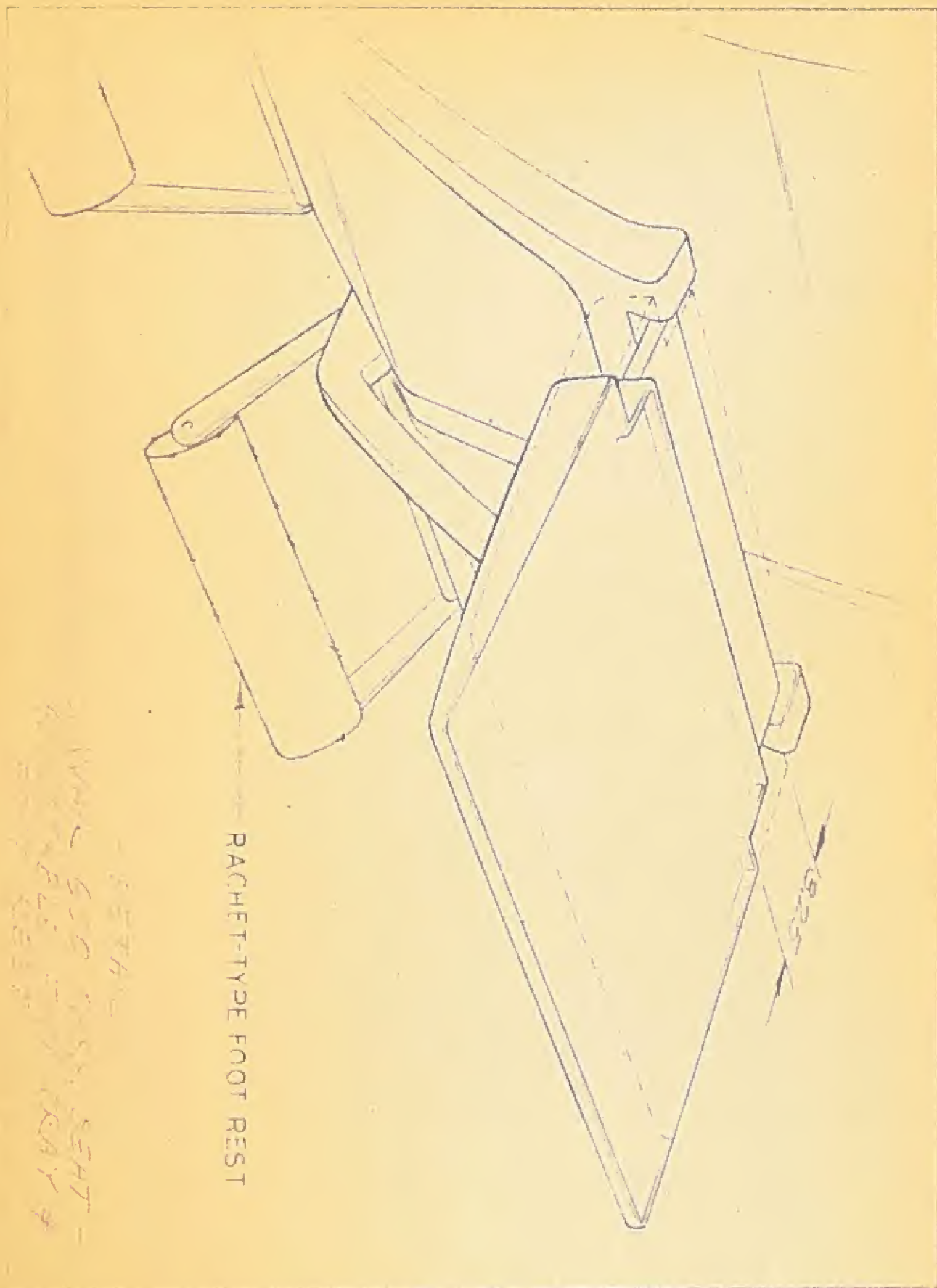
To: "A standard and a wide ratchet-type footrest shall be attached to each double seat except the last seat row, the seat row forward of the movable coat dividers and the aft facing double seat."

Enclosure: (A) One copy of Convair Sketch - CONVAIR 600 PASS. SEAT -  
ADJUSTABLE FOOD TRAY AND FOOTREST (For information only).

Effect on Weight Empty: +82.0 lbs  
Effect on Balance: +74,620 Inch-lbs  
Effect on Performance: None

The following shall not appear in the specification language:

The applicable language effects of CCP No. 38, Proposal "B" and CCP No. 40A are included in this proposal. On Customer acceptance of this change, Appendix I-C will be appropriately revised to show the combined effects of CCP No. 38, CCP No. 40A and this proposal.



RACQUET-TYPE FOOT REST

1. WOOD - 6.00  
2. FLO - 1.00  
3. SEAT - 1.00  
4. BACK - 1.00  
5. FOOT REST - 1.00  
6. TOTAL - 10.00



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,052 DTD \_\_\_\_\_

CHANGE NO: 43

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Deletion of double coat compartment)

ORIGIN: RFC.No. 55-19-41, Revised

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
QUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Deletion of double coat compartment)

Origin: RFC No. 55-19-41, Revised

Reason for Change: Customer request

Description of Change:

Page 85, Paragraph 3.19.2.3 - COAT STOWAGE;

Revise the paragraph to read as follows:

"Two fixed coat stowage compartments shall be installed and located as follows:

One on the forward left hand side, forward of the main entrance door; and one located forward of the left hand aft lavatory."

Page 87, Paragraph 3.19.2.7.7

Delete this paragraph.

App. II - Interior Arrangement - Coach

Revise above illustration to show two-place seat in forward right side of passenger area, in lieu of removable coat closet to be interchangeable with seat.

Page 3b - Interior Arrangement - Standard

Revise above illustration to show two-place seat in forward right side of passenger area, in lieu of removable coat closet to be interchangeable with seat.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,051 DTD \_\_\_\_\_

CHANGE NO: 42

MODEL: 30-5 (Convair "600")

TITLE: Administrative Change (To define airplane hydraulic fitting connections.)

ORIGIN: AAL/Convair meeting of 17 March 1959

REASON FOR CHANGE: Customer request (AAL inter-office memo dated 4 March 1959)

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_  
BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

American Airlines Inc.  
Change No. 42

Title: Administrative Change (To define airplane hydraulic fitting connections.)

Origin: AAL/Convair meeting of 17 March 1959

Reason for Change: Customer request (AAL inter-office memo dated 4 March 1959)

Description of Change:

Page 50, paragraph 3.15.1.5 FITTINGS:

Add the following to the paragraph:

"Ground test fittings shall be provided on each airplane to permit ground checking of the hydraulic system. The airplane fittings shall be capable of receiving ground cart fittings designed to connect to Aeroquip 307008-S2-10D pressure couplings and Aeroquip 014578-S2-20D return couplings.

Page A-20, Appendix I-C

Delete

2 Coupling, Grd. Test Press.	Aeroquip	305503-S11-12D
2 Coupling, Grd. Test Ret.	Aeroquip	307012-S11-1D

Add

2 Coupling, Grd. Test Press.	(P/N to be supplied)
2 Coupling, Grd. Test Ret.	(P/N to be supplied)

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines, Inc.

MCL 60,042 DTD \_\_\_\_\_

CHANGE NO: 39A

MODEL: 30-5 (Convair "600")

TITLE: **Stewardess Seats, Installation of**

ORIGIN: **American Airline/Convair Meeting of 19 March 1959**

REASON FOR CHANGE:  
**Customer Request, and revision to CCP No. 39**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY + 122.0 lbs.	OPER. WT. EMPTY + 122.0 lbs.	+ 119,477 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES: <b>This proposal cancels RFC No. 555-19-110</b>	ENGINEERING APPROVAL
--	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_  
BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Stewardess Seats, Installation of

Origin: American Airlines/Convair Meeting of 19 March 1959

Reason for Change: Customer Request.

Description of Change:

Page 81, Paragraph 3.19.1.1.4 CABIN ATTENDANT'S SEATS:

Delete the sentence and substitute the following:

"Two retractable, upholstered seats and back-rests shall be provided for cabin attendants; one single aft facing seat on left hand cabin aft bulkhead and one forward facing seat on inboard face of the aft left hand coat compartment . A double, forward facing cabin attendants' seat shall be installed on the forward face of left hand partition at approximately station 370. The seat shall be designed to fold."

Page 82, Paragraph 3.19.1.1.6 SAFETY BELTS:

Add the following sentence after the second sentence:

"Safety belts only shall be provided for the cabin attendants' seats. A double safety belt installation shall be provided on the double cabin attendants' seat. No shoulder harnesses shall be provided for this double seat."

Page A-24, APPENDIX I-C, FURNISHINGS:

Add the following to the Description List:

- "2 Cabin Attendants' Seats, Folding-Type  
(Including Safety Belts)
- 1 Double Cabin Attendants' Seat, Folding-Type  
(Including Safety Belts)"

Page A-26, APPENDIX I-C, OXYGEN EQUIPMENT:

Change the below item as follows:

<u>From:</u>	"AR Mask, Passenger, Oxygen	ARO Equipt.	C7040-0"
<u>To:</u>	"AR Mask, Passenger, and Cabin Attendants' Oxygen	ARO Equipt.	C7040-0"



The below illustrations will be revised to show effects of cabin attendants' seat installation on Customer acceptance of this proposal:

APP. II - INTERIOR ARRANGEMENT - COACH  
- INTERIOR ARRANGEMENT - MIXED SEATING  
Page 3b - INTERIOR ARRANGEMENT - STANDARD  
Page 90a - GASEOUS OXYGEN SYSTEM

Effect on Weight Empty:	+ 122.0 lbs.
Effect on Balance:	+119,477 in/lbs.
Effect on Performance:	None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines, Inc.

MCL 60,041  
60,043 DTD \_\_\_\_\_

CHANGE NO. 38A and 40A Combined

MODEL: 30-5 (Convair "600")

TITLE: **Deletion of Six-Place Lounge and Installation of Standard Cabin Passenger Seats; and, Removable Coat Dividers, Installation of**

ORIGIN: **American Airlines/Convair Meeting of 19 March 1959**

REASON FOR CHANGE: **Customer request**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
38A - -87.0 lbs.	38A - -87.0 lbs.	38A - -91,857	Inch-lb.
40A - +155.0 lbs.	40A - +155.0 lbs.	40A - + 134,873	Inch-lb.
Total - + 68.0 lbs.	Total - + 68.0 lbs.	Total + 43,016	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: **None**

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES.</p>	ENGINEERING APPROVAL
--	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE.
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



title: Deletion of Six-Place Lounge, and Installation of Standard Cabin Passenger Seats;  
and, Removable Coat Dividers, Installation of

Origin: American Airlines/Convair Meeting of 19 March 1959

Reason for Change: Customer Request

Description of Change:

Page 1, Paragraph 1.1 BASIC TYPE:

Revise the third sentence to read as follows:

"The body of this specification shall describe the Standard Arrangement of this airplane which provides for the accommodation of 92 first class day passengers."

Revise the following in last line of last sentence:

From: "121 passengers"

\* To: "113 passengers"

Page 9, Paragraph 3.2.1 GENERAL INTERIOR ARRANGEMENTS:

In the first sentence change "90 passenger" to "92-passenger"

\* In the second sentence change "121 passenger" to "113-passenger"

Page 62, Paragraph 3.16.8.3.4 READING LIGHTS:

Add the following after the second sentence:

"Two lights shall be similarly installed at each of the three forward left hand double-seat rows"

Page 81, Paragraph 3.19.1 GENERAL:

Revise the first sentence to read as follows:

"The interior shall include furnishing and equipment for 92 passengers and crew accommodations. (See Page 3b, INTERIOR ARRANGEMENT STANDARD)".

Page 82, Paragraph 3.19.1.2 CONVERTIBILITY:

Change the paragraph to read as follows:

"Convertibility within the passenger compartment may be accomplished by installation of the movable coat dividers specified in 3.19.2.3.1. The coat dividers may be installed in lieu of one row of passenger seats to divide the passenger compartment into various combinations of passenger seating."

\* (Includes Effect of RFC 55-19-66)



## Page 82, Paragraph 3.19.1.1.5 - PASSENGER SEATS:

Delete that portion of the paragraph which starts with "Each passenger seat shall be equipped with a footrest", and on, and substitute the following:

Each passenger seat shall be equipped with a foot rest except the row of seats immediately forward of the movable coat dividers, aft cabin seat row left hand and right hand, and the aft facing double seat. Integral folding food trays shall be installed in the passenger seat backs excluding the row of seats immediately forward of the movable coat dividers, the aft cabin seat row left hand and right hand and the aft facing double seat. Provisions for incorporation of integral food trays shall be made on all cabin passenger seats except the aft facing double seat. Four folding food tray closing panels shall be provided for use on the inboard seat places just forward of the movable coat dividers and the aft cabin seat row to make the appearance of these inboard seat backs similar to the remainder of the seat backs containing folding food trays. Plug-in type food trays shall be provided for the four forward seats in the forward left hand cabin, the two seats immediately aft of the No. 2 buffet and the four seat places aft of the movable coat dividers. Stowage for plug-in trays shall be provided in the movable coat dividers. Literature pockets shall be installed on the main cabin forward partitions, the aft side of the movable coat dividers and directly below the food trays in the passenger seat backs.

## Page 85, Paragraph 3.19.2.3.1 MOVABLE COAT DIVIDERS:

Add the following paragraph to read as follows:

"Movable coat dividers, consisting of one right hand assembly and one left hand assembly shall be provided for installation within the passenger compartment. The movable coat dividers shall be capable of being installed in one inch increments anywhere within the limitations of positions one through five as shown in Appendix II (Ordinance sign shall be provided only in the right hand divider) except, that air conditioning and acoustics requirements shall apply only to locations one through five as shown on the illustrations in Appendix II. The movable coat dividers shall utilize the existing passenger seat attachments and shall be designed to clear the sidewall and hat rack contours with a one inch gap. Each movable coat divider shall be provided with a 28-inch long pull-out coat rod. The right hand coat divider shall include an illuminated "No Smoking" and "Fasten Seat Belt" sign, and shall incorporate a stowage box including an upward swinging door on the aisle side. The right hand coat divider shall contain structural provisions for the subsequent installation of a hinged aisle door."

## Page 88, Paragraph 3.19.3.6 HAT RACKS:

Change the period at end of first sentence to a comma and add the following

"including the area over the three forward left hand double seats."

Delete the second and third sentences.

## Page 91, Paragraph 3.19.5.4 INDIVIDUAL OUTLETS:

Delete the last item in paragraph "(Six in club area)"

Add the following item:

"Three for each of the three forward left hand double seats."



## Page 101, Paragraph 3.23.2 EQUIPMENT INTERCHANGEABILITY:

Under "a. Interchangeable Parts" Add an asterisk after "Passenger Seat Assembly L. H.\*", and add the following note to the bottom of the page:

"\*Except the most forward L. H. aft facing seat assembly (See Par. 3.19.1.1.5)

## Page A-24, APPENDIX I-C, FURNISHING:

Add the following item to the Description List:

"1 Double Seat Aft Facing Special, L. H. Forward (Includes safety belts) 70.0"

Revise the below item as follows:

From: "45 Double Seats (Incl. footrests and safety belts) 2385.0"

To: "45 Double Seats (Incl. foot-rests for 41 double seats and safety belts) 2377.0

Delete the following items from the Description List:

"6 Seats, 6-Place Club Narmco  
1 Table, Coffee  
1 Table, Including Magazine  
Rock and Lamp"

## Page A-24, APPENDIX I-C, FURNISHINGS:

Revise the below item as follows:

From: "86 Trays, Integral Folding 258.0"

To: "82 Trays, Integral Folding" 246.0

Add the following items to the Description List:

"41 Standard Foot Rests  
41 Wide Foot Rests  
4 Food Tray Closing Panels" 6.0  
1 Divider, Movable Coat (LH)  
1 Divider, Movable Coat (RH) (Including stowage box and illuminated  
"No Smoking" "Fasten Seat Belt" signs)

## Page A-25, APPENDIX I-C, FURNISHINGS:

Change the eighth item as follows:

From: Seat Upholstering (Including Lounge) 11.5 oz/sq. yd"

To: Seat Upholstering 11.5 oz/sq. yd"

The below listed illustrations will be revised to show the effects of deletion of the six-place lounge on Customer acceptance of this proposal:

Page A-25, APPENDIX I-C, FURNISHINGS: (cont.)

"APP II - INTERIOR ARRANGEMENT - COACH  
- INTERIOR ARRANGEMENT - MIXED SEATING  
Page 3b - INTERIOR ARRANGEMENT - STANDARD  
Page 90a - GASEOUS OXYGEN SYSTEM"

## Effect on Weight Empty:

CCP 38A	-	- 87.0 lbs.
CCP 40A	-	+ 155.0 lbs.
Total		+ 68.0 lbs.

## Effect on Balance:

CCP 38A	-	-91,857 in/lbs.
CCP 40A	-	+134,873 in/lbs.
Total		+ 43,016 in/lbs.

Effect on Performance: None

The following shall not appear in the Specification language:

Acceptance of this Proposal will cancel the following RFC's:

555-19-130	-	Lounge Stowage Boxes
555-16-65	-	Dimming Switch for Lounge Seats
555-19-124	-	Lounge Plug-in Food Trays
555-APP-41	-	Lounge Cocktail Tables
555-19-104	-	Oxygen Mask Stowage in Lounge
555-19-127	-	Lounge Weather Curtain
555-19-134	-	Aisle Curtain

The affects of Customer acceptance of any or all of CCP's 25 through 31 have not been incorporated in this CCP. Weight for two food tray closing panels has been included in CCP No. 31, Proposal "C".

Paragraph 3.1.2.2 (Typical Loading Summary) will be revised to reflect weights during the next Specification revision.

No weight effect for passenger service is shown due to pending changes to operating items which will be covered by another CCP.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,040 DTD \_\_\_\_\_

CHANGE NO: 37A

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Specification clarification of thrust reverser failure)

ORIGIN: Convair initiated based on design resolution. Reference: AA/GE/Convair Meetings during week of 9 November 1959 in Evendale, Ohio

REASON FOR CHANGE: Design resolved with American Airlines and revision to CCP No. 37 per AAL Letter of 4-28-60.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Specification clarification of thrust reverser failure)

Origin: Convair initiated based on design resolution. Reference: AA/GE/Convair Meetings during week of 9 November 1959 in Evendale, Ohio

Reason for Change: Design resolved with American Airlines and revision to CCP No. 37 per AAL Letter of 4-28-60.

Description of Change:

Page 40, Paragraph 3.12.6 REVERSE THRUST:

Delete the last sentence which reads as follows:

"Failure of the thrust reverser shall not decrease available forward thrust on an engine by more than 25 percent."

Add the following after the fifth sentence:

- "1. In the thrust reverser latch-door area (where pilot indication is provided after any single failure) at least two failures involving both reverser latches shall be required before an inadvertent thrust reversal is possible during takeoff or in flight.
2. In all other areas of the reverser system where no pilot indication is provided, no two failures or malfunctions, related or unrelated shall cause inadvertent reversal."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: 19 March 1959

CUSTOMER: American Airlines Inc.

MCL: 60,038 DTD: \_\_\_\_\_

CHANGE NO.: 36

MODEL: 30-5

TITLE: **Specification Administrative Change (Landing Gear Control Switching)**

ORIGIN: **Convair Electrical Group**

REASON FOR CHANGE: **To clarify that the landing gear control is a function of oleo extension and truck position rather than throttle switches.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
QUART. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

\_\_\_\_\_  
DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Landing Gear Control Switching)

Origin: Convair Electrical Group

Reason for Change; To clarify that the landing gear control is a function of oleo extension and truck position rather than throttle switches.

Description for Change:

Page 22, Paragraph 3.8.1.3 Controls:

Revise the fourth sentence to read as follows:

The control lever shall remain locked until the left hand shock strut is extended and both main landing gear trucks are in the level zone.

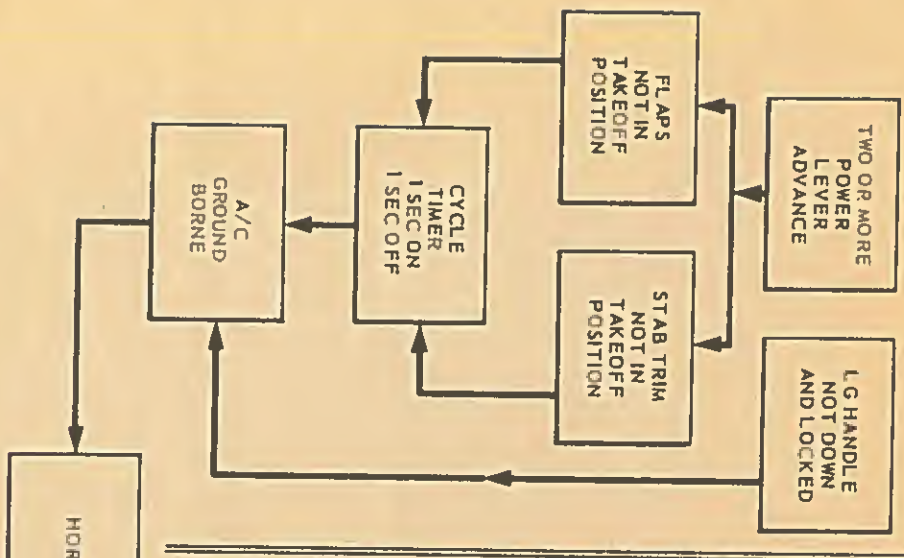
A diagram of warning horn, landing gear control and landing gear position systems shall be provided at the next revision of the detail specification.

Enclosure: (A) One copy of diagram warning horn, landing gear control and landing gear position systems (for information only)

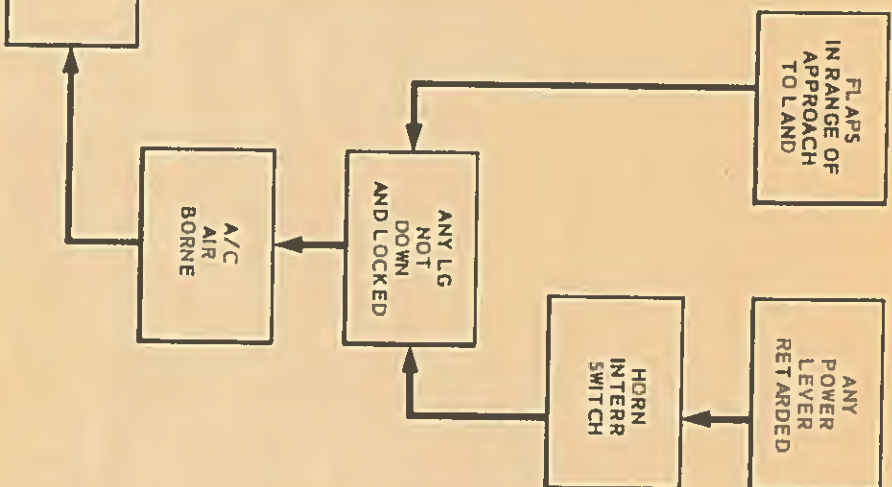
Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



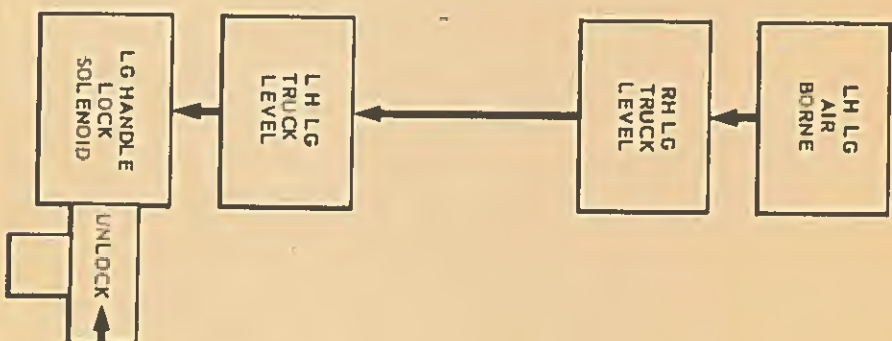
## TAKEOFF



## AIRBORNE AND LANDING



## LANDING GEAR LEVER



N	R
O	H
S	
E	

GREEN  
LIGHT ON WHEN ITS RESPECTIVE  
GEAR DOWN AND LOCKED.

U	N
S	A
F	E

RED

LIGHT ON WHEN -

1. ANY LANDING GEAR NOT DOWN OR UP AND LOCKED.
2. LH AND/OR RH LANDING GEAR DOWN AND LOCKED WITH NOSE GEAR UP AND LOCKED.
3. HANDLE NOT LOCKED WITH ALL L LANDING GEAR DOWN AND LOCKED AND A/C GROUND BORNE.
4. LANDING GEAR LEVER NOT DOWN AND MECHANICALLY LOCKED. ALL L LANDING GEAR DOWN AND LOCKED.

WARN HORN, LANDING GEAR CONTROL & LANDING GEAR POSITION SYSTEMS

(CONVAIR 600)

5110 3-19-59

D
O
R

RED  
LIGHT ON WITH ANY WHEEL-WEEL  
DOOR NOT CLOSED AND LOCKED.

T	R	U	C
K			

AMBER

LIGHT ON IF EITHER MAIN LANDING GEAR  
TRUCK NOT IN LEVEL ZONE.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: AAL

MCL 60,039 DTD \_\_\_\_\_

CHANGE NO: 35

MODEL: 30-5 (Convair "600")

TITLE Specification Administrative Change (Fuel System - Change in Fuel Gage Unit Connection and Deletion of Mesh Screen)

ORIGIN: Convair initiated.

REASON FOR CHANGE: Terminal screws in lieu of plugs and receptacles for the fuel gage units are required because the sensing units selected by Convair do not have plugs and receptacles. In addition the use of terminal screws will provide a more reliable and less complex installation. The 8-10 mesh screens downstream of the emergency shutoff valve are not required by FAA and their deletion also eliminates a potential icing point.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_  
BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



CONVAIR: SD

American Airlines Inc.  
Change No. 35

Page 1 of 2

Title: Specification Administrative Change (Fuel System - Change in Fuel Gage Unit Connection and Deletion of Mesh Screen)

Origin: Convair

Reason for Change: Terminal screws in lieu of plugs and receptacles for the fuel gage units are required because the sensing units selected by Convair do not have plugs and receptacles. In addition the use of terminal screws will provide a more reliable and less complex installation. The 8-10 mesh screens downstream of the emergency shutoff valve are not required by FAA and their deletion also eliminates a potential icing point.

Description of Change:

Page 39, Paragraph 3.12.9.8 STRAINERS:

Revise the paragraph by deleting reference to an 8-10 mesh fuel screen downstream of the emergency shutoff valve. The paragraph will then read as follows:

"An 8-10 mesh screen shall be installed at each jettison, boost and transfer pump inlet."

Page 39, Paragraph 3.12.9.9.1 QUANTITY GAGES:

Change the third sentence to read as follows:

"The fuel gage units in the tanks shall be provided with terminal screws and shall be designed to permit installation or replacement without special tools."

Page 35a, PROPULSION FLUID SYSTEM

Revise above illustration by deleting mesh screens downstream of emergency shutoff valves.

CONVAIR: SD

American Airlines Inc.  
Change No. 35

Page 2 of 2

Page A-6, APPENDIX I-C, FUEL SYSTEM EQUIPMENT:

Change the below item as follows:

From: "56 Sensing Unit - Fuel Quantity      Simmonds      381056-02143-  
thru 02293"

To: "AR Sensing Unit - Fuel Quantity      Simmonds      381056-02143-  
thru 02293"

Page A-9, APPENDIX I-C, ENGINE INSTRUMENTS - FUEL SYSTEM:

Delete:

"AR      Probes, Fuel Quantity      Simmonds"

Effect on Weight Empty:      0  
Effect on Balance:      0  
Effect on Performance:      None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,035 DTD \_\_\_\_\_

CHANGE NO: 34A

MODEL: 30-5 (Convair "600")

TITLE: **Electrical Receptacles to Accommodate Movable Coat Dividers, Installation of**

ORIGIN: **RFC's 55-19-76, 55-19-103 and 55-20-37**

REASON FOR CHANGE: **Customer request**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<b>+ 5.0 lb</b>	<b>+ 5.0 lb</b>	<b>+ 4,125</b> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Electrical Receptacles to Accommodate Movable Coat Dividers, Installation of

Origin: RFC's 55-19-76, 55-19-103 and 55-20-37

Reason for Change: Customer request

Description of Change:

Page 66, Add the following new paragraph to the page, after Paragraph 3.16.10.8:

"3.16.10.8.1 - SIGN RECEPTACLES: Receptacles shall be provided on the right hand side of the passenger compartment to accommodate the sign installed on the right hand optional movable coat divider within the limitations as defined in Paragraph 3.19.2.3.1. The air modulation provisions specified in Paragraph 3.20.1.9 shall be applicable only under the conditions stated in that paragraph."

Effect on Weight Empty: + 5.0 lb  
Effect on Balance: + 4,125 Inch-lbs  
Effect on Performance: None

The following shall not appear in the Specification language:

Acceptance of this proposal will cancel RFC's 55-19-76 and 55-19-103.



# CONVAIR

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. 2D- 30-005

DATE 12 March 1959

CUSTOMER American Airlines Inc.

MCL 60,034 DTD \_\_\_\_\_

CHANGE NO 33

MODEL: 30-5

TITLE Specification Administrative Change (Incorporation of Specification-Change RFCs)

ORIGIN As noted on RFCs

REASON FOR CHANGE To record miscellaneous administrative changes incorporated into Preliminary Detail Specification 2D-30-005.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE \* None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND INCORPORATED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	ENGINEERING APPROVAL
--	----------------------

LATEST DATE OF ACCEPTANCE.	AIRPLANES AFFECTED.
----------------------------	---------------------

<p>EFFECT ON PRICE PER AIRPLANE.</p> <p>RECURRING: _____</p> <p>NON-RECURRING: _____</p> <p>TOTAL: _____</p>
--

Title: Specification Administrative Change (Incorporation of Specification-Change RFCs)

Origin: As noted on listed RFCs.

Reason for Change: To record miscellaneous administrative changes incorporated into Preliminary Detail Specification ZD-30-005.

55-1-12	55-2-8	55-12-39
55-1-13	55-5-6	55-16-33
55-1-14	55-8-10	55-19-36
55-1-15	55-8-11	55-19-39
	55-12-38	55-APP-28

Description of Change:

Page	RFC	Paragraph
------	-----	-----------

3	55-2-8	2.4
---	--------	-----

Substitution of Items and Materials:

Change: The Seller

To: Convair

5	55-1-12	3.1.1 CHARACTERISTICS:
---	---------	------------------------

Change: Max. Allowable Takeoff Weight

From: 217,500

To: 238,200

Change: Max. Allowable Landing Weight

From: 177,300

To: 180,000

5	55-1-12	3.1.2.1 WEIGHT EMPTY:
---	---------	-----------------------

Change: Appendix I-A and I-B

To: Appendix I-A, I-B and I-C



Para 130

Paragraph

55-1-15 3.1.2.2 TYPICAL LOAD SUMMARY:

Revise as follows:

Manufacturer's Weight Empty (dry) per specification and for standard configuration (90 passenger)	112,352 lb
Fixed Useful Load (Standard Configuration)	4,953 lb
Crew	
Pilots (2)	340
Flight Engineer (1)	170
Cabin Attendants (3)	390
Crew Baggage	75
Flight Deck Equipment	50
Emergency Equipment	272
Oxygen Bottles (4)	187
Passenger Service	1,667
Water	429
Preloaded Baggage Bins (6)	480
Air - engine starting	113
Unusable Fuel and Oil	680
Engine Oil	100
Plus allowance for future Buyer requested changes	<u>1,500 lb</u>
Operating Weight Empty	118,805 lb
Payload (Space Limit - Standard Configuration)	23,570 lb
Fuel (Integral @ 6.7 lb/gal)	<u>67,625 lb</u>
Gross Weight	210,000 lb

Space Limit Payloads:

	<u>Standard</u>	<u>Alternate Coach*</u>
Passengers @ 165 lb (90), (121)*	14,850	19,965
Cargo (in bins @ 10 lb/cu ft)	3,420	3,420
Cargo (loose @ 10 lb/cu ft)	<u>5,300</u>	<u>5,300</u>
Total	23,570	28,685

\*NOTE: Space Limit alternate coach arrangement of 121 passengers requires changing to five abreast passenger seats. Assuming no change in above Fixed Useful Load, the Weight Empty and the operating Weight Empty will increase approximately 250 lb for the full coach configuration. See Appendix II.

Page 110

Paragraph

00 55-1-14 3.1.2.2.1 GROUP WEIGHTS:

Add new paragraph:

GROUP WEIGHTS: The Manufacturer's Weight Empty is estimated to consist of the following:

Wing		26,584 lb
Tail		5,038 lb
Fuselage		16,793 lb
Landing Gear		9,535 lb
Surface Controls		2,998 lb
Nacelle		6,242 lb
Propulsion Group		20,985 lb
Engine Installation (Dry)	15,400	
Engines, Dry	14,800	
Bucket Guards	400	
*Engine Equipment	200	
Thrust Reversers	1,400	
Installation Oil and Grease	20	
Air Induction System	566	
Cooling System	128	
Lubricating System	32	
Fuel System	2,953	
Engine Controls	190	
Starting System	296	
Instruments		655 lb
Hydraulic and Pneumatics		2,052 lb
Electrical		2,626 lb
Electronics		1,714 lb
Furnishings		13,331 lb
Air Conditioning		2,746 lb
Anti-Icing		992 lb
Auxiliary Gear		61 lb
WEIGHT EMPTY		112,352 lb

\*Includes fuel heaters, tachometer generators, constant speed drive oil tanks, and constant speed drive oil coolers.



<u>Page</u>	<u>AFC</u>	<u>Paragraph</u>
7	55-1-13	3.1.3.1 WING: Airfoil Section Designation Tip - <u>Change:</u> .059 <u>To:</u> .061 Sweep - <u>Change:</u> Sweep (28% cord) 35° <u>To:</u> Sweep (leading edge) 39°
7	55-1-13	3.1.3.2.1 HORIZONTAL: Area - <u>Change:</u> 449 sq. ft. <u>To:</u> 426.5 sq. ft. Sweep - <u>Change:</u> Sweep (26.4% cord) 41° <u>To:</u> Sweep (leading edge) 41°
13	55-5-6	3.5.2.4 MAIN LANDING GEAR ATTACHMENT: <u>Change</u> paragraph to read: Gear attachment design shall be such that fuel spillage shall be minimized in the event of gear wipe-off.
23	55-8-11	3.8.1.3.1 LANDING GEAR AS SPEED BRAKE: <u>Add</u> paragraph title and number to the second paragraph.

Page   IFC                      Paragraph

26    55-8-10            3.8.4.7   STEERING CONTROL:

In the second sentence

Change:   21 feet 1 inchTo:            20 feet 10.5 inches

In the third sentence

Change:   84 feet 7 inchesTo:            85 feet 7.22 inches

37    55-12-39            3.12.9.3   TANKS:

Change paragraph to read:

TANKS: Four main compartmented fuel tanks (with a minimum expansion space equal to two percent of the tank gross volume) shall be provided in the interspar area of the wing and the four anti-shock body compartments. The fuel system shall be designed so that the fuel tank boost pump inlets will not be uncovered in any normal flight attitude. The design shall be such that fuel seepage cannot enter the strut or nacelle installation. The wing ventilating openings shall be designed and located so that it will be impossible for fuel inadvertently spilled at any time to enter the wing through these openings. Total integral main fuel capacity shall be approximately 12,008 gallons or approximately 80,450 pounds at 6.7 lb/gal and minimum shall not be less than -3 percent of this value:

Approximate tank capacities are as follows:

Inboard	6,572 gal	(3,286 gal. each)
Outboard	5,436 gal	(2,718 gal. each)

Change 3.12.9.3.1 (CROSS-FEED SYSTEM) to 3.12.9.3.2Add new 3.12.9.3.1 as follows:

WING CENTER SECTION FUEL SYSTEM: A five bay auxiliary fuel system shall be installed in the wing center section. The total capacity of this system shall be approximately 3,100 gallons.



Page   RFC   Paragraph

42   55-12-38   3.12.11.2   GENERAL CONTROLS:

Change:   Emergency Power Plant Shutoff

To:   Engine Emergency Control

67   55-16-33   3.16.11.4.3   CABIN ATTENDANT TO PILOT CALL SWITCH:

Change:   Crews'

To:   Crew's

82   55-19-36   3.19.2.1.1   BUFFET:

Change paragraph to read:

A buffet comprised of four Buyer furnished units shall be installed. Units No. 1 and No. 2 shall be located in the forward area, shall have a food tray capacity of 28 each and shall be 32 inches fore and aft including work surface extensions. Unit No. 3 shall be located forward of the aft right hand service door, shall have a food tray capacity of 42 and shall be 32 inches fore and aft. Unit No. 4 shall be located aft of the aft right hand service door to accommodate Buyer furnished buffet equipment.

85   55-19-39   3.19.2.3   COAT STOWAGE:

Change paragraph to read:

Three passenger coat stowage compartments shall be installed and located as follows: One on forward left hand side forward of main entrance door, one on right side aft of forward buffet, and one located forward of the left hand aft lavatory. (The forward right hand coat compartment may be replaced by a two-place seat as noted on the Interior Arrangement herein.)

A-7   55-APP-28   APPENDIX I-C   FLIGHT INSTRUMENTS:

Add:

2   Indicator Light, Power Failure   Korry

Effect on Weight Empty:   0  
Effect on Balance:   0  
Effect on Performance:   None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN FRANCISCO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines

MCL 60,036 DTD \_\_\_\_\_

CHANGE NO. 32

MODEL: 30-5 (Convair "600")

TITLE: Identification of Aldis Lamp and Emergency Exit Lights

ORIGIN: Memo, A. J. Savard from T. B. Eastland, Jr., dated 20 January 1959 and TWX, Olson to R. L. Wintringer, dated 9 March 1959

REASON FOR CHANGE: To specify part numbers requested in memo and TWX shown above.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
QUAN. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Identification of Aldis Lamp and Emergency Exit Lights

Origin: Memo, A. J. Savard from T. B. Eastland, Jr., dated 20 January 1959  
and TWX, Olson to R. L. Wintringer, dated 9 March 1959

Reason for Change: To specify part numbers requested in memo and TWX  
shown above.

Description of Change:

Page    Paragraph

A-15    APPENDIX I-C

ELECTRICAL EQUIPMENT

Warning Lights:

Add:

1   Aldis Lamp	Grimes	D-5705-12
----------------	--------	-----------

Interior Lights:

Add:

6   Light, Emergency Exit, Electra type	Grimes	40100
--	--------	-------

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,032 DTD \_\_\_\_\_

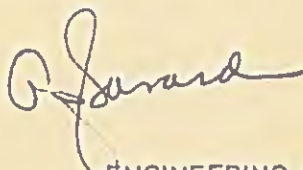
CHANGE NO: 31A

MODEL: 30-5 (Convair "600")

TITLE: Miscellaneous Customer Option Cabin Seat Weight Items

ORIGIN: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959.

REASON FOR CHANGE: Customer request, and revision to CCP No. 31.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>See Weight breakdown at end of CCP for Proposals "A" and "C".</u>	OPER. WT. EMPTY <u>See Weight breakdown at end of CCP for Proposals "A" and "C".</u>	INCH LB.
EFFECT ON GUARANTEED PERFORMANCE: * <p style="text-align: center;"><u>None</u></p>		
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		 ENGINEERING APPROVAL
LATEST DATE OF ACCEPTANCE: _____		AIRPLANES AFFECTED: _____
SPECIAL PROVISIONS: _____		EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 31A

Page 1 of 2

Title: Miscellaneous Customer Option Cabin Seat Weight Items:

Origin: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959.

Reason for Change: Customer request and revision to CCP No. 31.

Description of Change:

PROPOSAL "A"

Page 82, Paragraph 3.19.1.1.5 PASSENGER SEATS:

Add the following to the end of the paragraph:

"First class cabin passenger seats shall be provided with hydraulic recline locks."

Enclosure: (A) One copy of Convair Sketch "Convair Passenger Seat".  
(For information only.)

Effect on Weight Empty: ~~4~~42.0 pounds  
Effect on Balance: ~~4~~38,689 inch-pounds  
Effect on Performance: None

The following shall not appear in the Specification language:

Page A-26, APPENDIX I-C, will be revised to reflect the language and weight effects of this change on Customer acceptance of this proposal.

Proposal "B" cancelled.

PROPOSAL "C"

Page A-24, APPENDIX I-C, FURNISHINGS:

Change the tenth item in the Description List as follows:

From: "45 Double Seats (including footrests for 41 double  
seats and safety belts) 2,383.0"

To: "45 Double Seats, 52-Inch Width (including foot-  
rests for 41  
double seats and  
safety belts) 2,443.2"

Change the 11th item in the Description List as follows:

From: "82 Trays, Integral Folding 246.0"

To: "82 Trays, Integral Folding (for 52-Inch Seat) 315.7"

Enclosure: (A) One copy of Convair Sketch "Convair 52 Inch Seat".  
(For information only.)

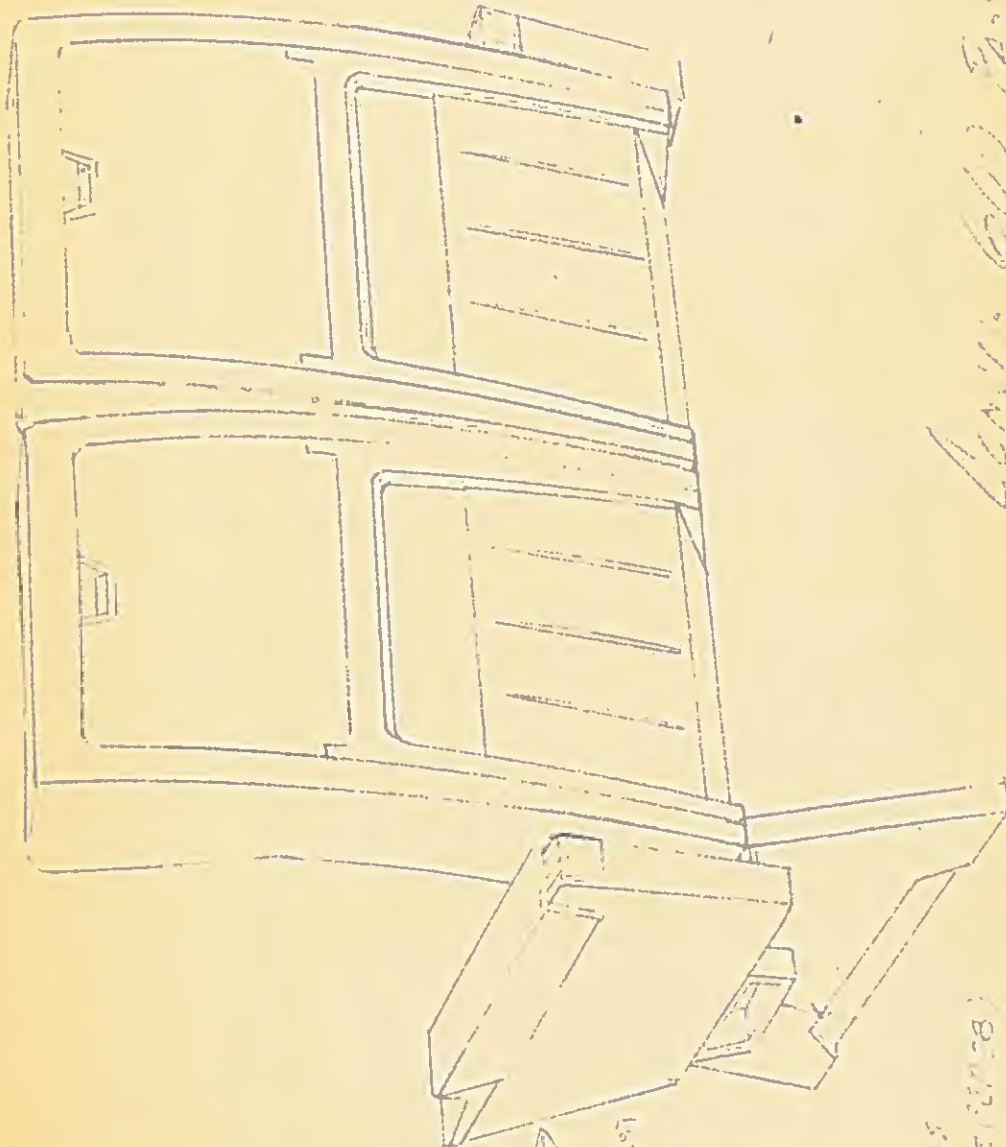
Effect on Weight Empty: /127.0 pounds  
Effect on Balance: /119,288 inch-pounds  
Effect on Performance: None

The following shall not appear in the Specification language:

This proposal is submitted to define the added seat weight due to 52-inch wide seats, in lieu of 50-inch wide seats and narrow feed trays.



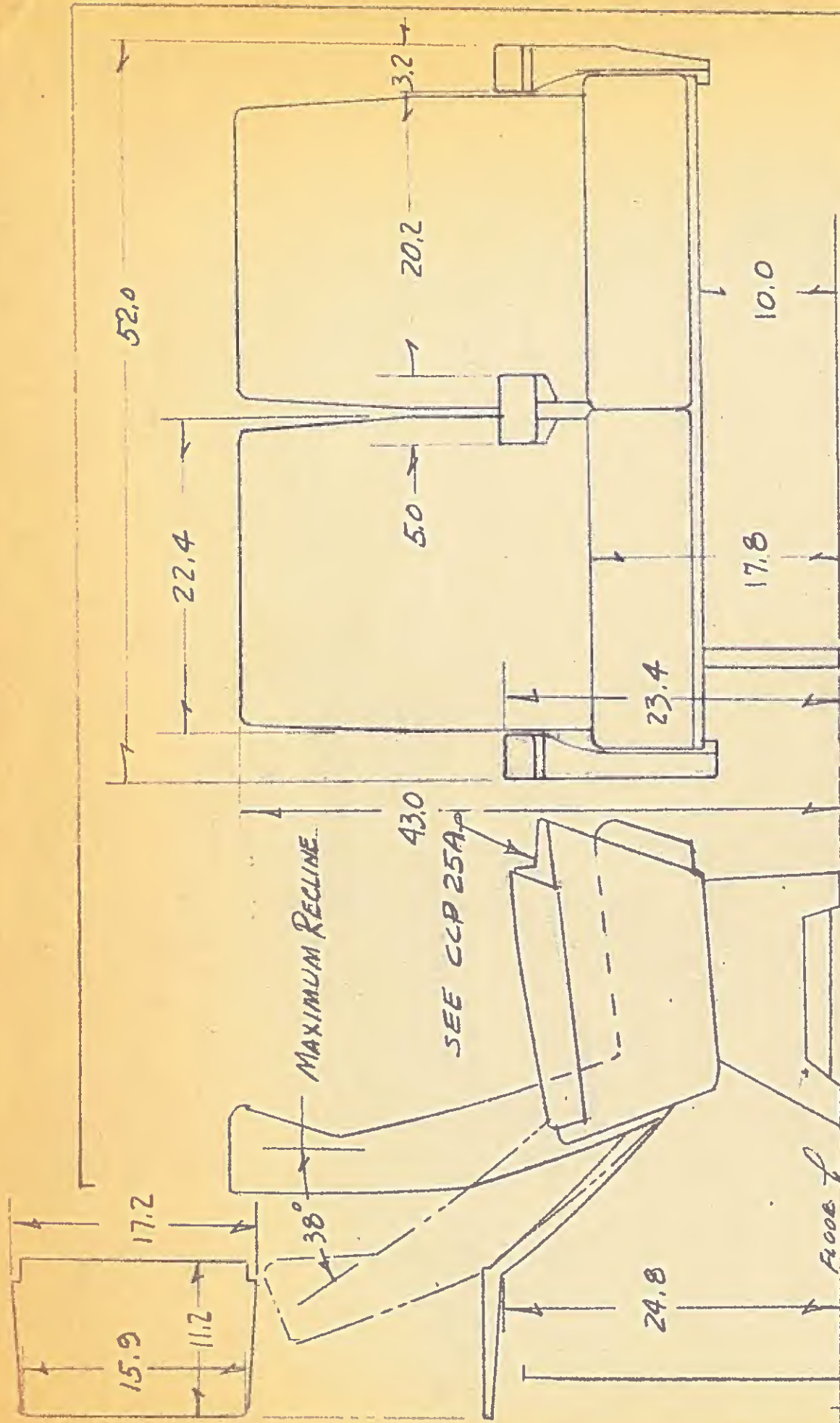
Z-30-005  
MODEL 30  
CCP 28A & 31A



SEE  
CCP 25A  
REVISED ARM REST

STEAMERS  
37E (SEE 37E-28)

LEAKY OLD Fridge  
R. H. SEE



INFORMATION SKETCH  
CONVAIR 600 52" SEAT  
FOR A.A.L. CCP, No 31A



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,030 DTD \_\_\_\_\_

CHANGE NO.: 29

MODEL: 30-5 (Convair "600")

TITLE: Energy Absorption Devices, Installation of

ORIGIN: American Airlines/Convair Seat Meeting During Week of 2 March 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>+64.0</u>	OPER. WT. EMPTY <u>+64.0</u>	<u>+59,237</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Energy Absorption Devices, Installation of

Origin: American Airlines/Convair Seat Meeting During Week of  
2 March 1959

Reason for Change: Customer Request

Description of Change:

Page 82 Add the following new paragraph after paragraph 3.19.1.1.6

"3.19.1.1.6.1 ENERGY ABSORPTION DEVICES, INSTALLATION:  
All main cabin passenger seats shall be  
equipped with energy absorption devices  
installed at each safety belt attachment."

Effect on Weight Empty: +64.0 lbs  
Effect on Balance: +59237 Inch - Lbs  
Effect on Performance: None

The following shall not appear in the specification language

"Page A-24 of Appendix I-C will be revised to show weight  
and language effects of energy absorption device installa-  
tion on Customer acceptance of this proposal."

A-27  
Hon. Leibel  
Bruckman



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,029 DTD \_\_\_\_\_

CHANGE NO: 28A

MODEL: 30-5 (Convair "600")


TITLE: Detachable Stewardess Step, Installation of

ORIGIN: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959.

REASON FOR CHANGE: Customer request and revision to CCP No. 28.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>137.0 lb</u>	OPER. WT. EMPTY <u>137.0 lb</u>	<u>134,019</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 <p>ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	<p>EFFECT ON PRICE PER AIRPLANE:</p> <p>RECURRING: _____</p> <p>NON-RECURRING: _____</p> <p>TOTAL: _____</p>
---------------------	--

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Detachable Stewardess Step, Installation of

Origin: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959.

Reason for Change: Customer request and revision to CCP No. 28.

Description of Change:

Page 81, Paragraph 3.19.1.1.5 PASSENGER SEATS:

Add to end of paragraph:

"A stewardess step, including a removable one piece extruded section with back-up structure built into the inboard arm rest, shall be installed. One on each inboard seat in the main passenger compartment for the first class configuration; 25 on the left side and 21 on the right side.

Enclosure: (A) One copy of Convair Sketch "Convair Passenger Seat" showing installation of stewardess step. (For information only.)

Effect on Weight Empty: 437.0 pounds  
Effect on Balance: 434,019 inch-pounds  
Effect on Performance: None

The following shall not appear in the Specification language:

Page A-26, APPENDIX I-C, will be revised to reflect the language and weight effects of this change on Customer acceptance of this proposal.



ZD-30-005  
MODEL 30  
CCP 28A E 31A



SEE  
CCP 25A REVISED  
ARM REST

STEAM 25A  
SEE (SEE CCP 28)

CCP 28A E 31A  
R.H. SEAT SHOWN

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,026 DTD \_\_\_\_\_

CHANGE NO: 25A

MODEL: 30-5 (Convair "600")

TITLE: Arm Rest, Seat, Revision to

ORIGIN: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959.

REASON FOR CHANGE: Customer request and revision to CCP No. 25.

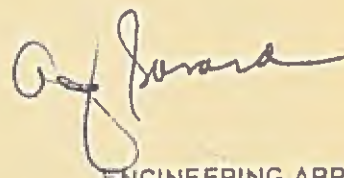
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>115.0 lb</u>	<u>115.0 lb</u>	<u>103,960</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Arm Rests, Seat, Revision to

Origin: American Airlines/Convair Seat Meeting During Week of 2 March 1959, and Interior Mock-Up Meeting of 11 May 1959

Reason for Change: Customer request and revision to CCP No. 25.

Description of Change:

This proposal has no effect on Specification language, and consists of the following changes to first class cabin passenger seats:

- a. Revises standard outside arm rests for minimum change to accomplish the relocated ash tray and provide wide arm bases.
- b. Redesigns plug-in receptacles.
- c. Revises recline lock handle.
- d. Increase length of arm rest.

Enclosure: (A) One copy of Convair Sketch - CONVAIR 600 PASS. SEAT  
(For information only.)

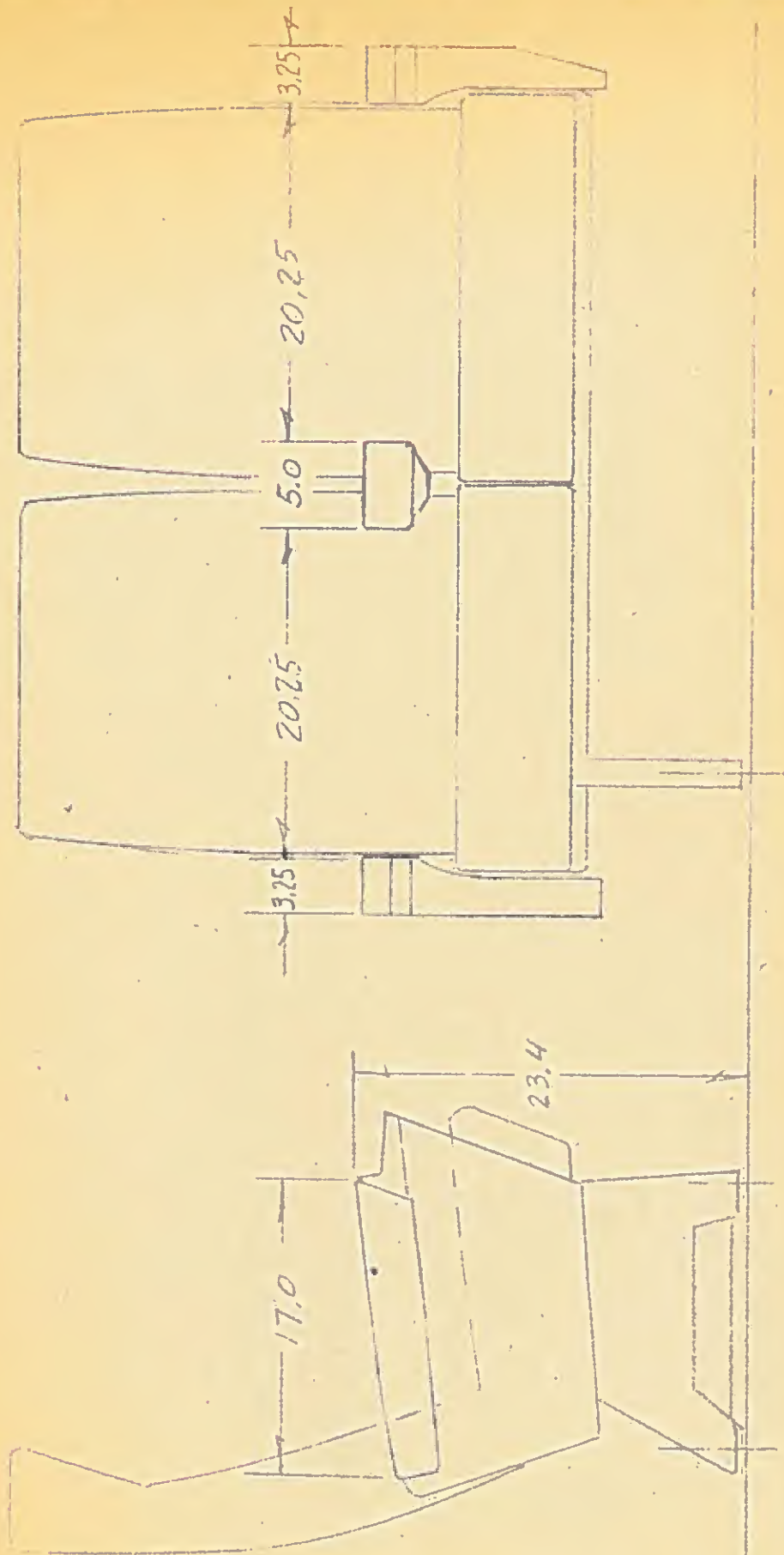
Effect on Weight Empty: ~~115.0~~ pounds  
Effect on Balance: ~~103,960~~ inch-pounds  
Effect on Performance: None

The following shall not appear in the Specification language:

Page A-26, APPENDIX I-C, will be revised to reflect the language and weight effects of this change on Customer acceptance of this proposal.

20-30-005  
MODEL 30  
CCP 2.5A

CONVAIR 600 PASS. SEAT





# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,021 DTD 23 February 1959

CHANGE NO. 24A

MODEL: 30-5 (Convair "600")

TITLE Customer Furnished Passenger Seats

ORIGIN: American Airlines Letter, B. D. OLSON to T. B. EASTLAND, JR., of Convair, dated 22 January 1959

REASON FOR CHANGE: To provide for installation of Buyer furnished seats in lieu of Convair furnished seats, and revision to CCP No. 24.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
SQ. FT. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:  
CCP No. 43

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Customer Furnished Passenger Seats

Origin: American Airlines Letter, B. D. OLSON to T. B. EASTLAND, JR.,  
of Convair, dated 22 January 1959

Reason for Change: To provide for installation of Buyer furnished seats  
in lieu of Convair furnished seats, and revision to  
CCP No. 24.

Description of Change:

Page 81, Paragraph 3.19.1.1.1 SEATS:

Revise the first sentence to read as follows:

"All seats, except Buyer furnished passenger seats shall be equipped  
with ....."

Revise the last sentence to read as follows:

"Wherever fabrics are used, on Convair furnished seats, for seat  
upholstery they shall be replaceable."

Page 81, Paragraph 3.19.1.1.5 PASSENGER SEATS:

Delete the entire paragraph and substitute the following:

"Provisions shall be made for the installation of 46-double Buyer  
furnished passenger seats. These seats shall be interchangeable  
with Convair seats in respect to attach point locations and attach-  
ment configuration. Passenger seat arrangement shall be as shown  
on Page 3b - INTERIOR ARRANGEMENT - STANDARD."

Page 82, Paragraph 3.19.1.1.5.1 SEAT BACK MOVEMENT:

Delete the entire paragraph.

Page 82, Paragraph 3.19.1.1.6 SAFETY BELTS:

Revise the first sentence to read as follows:

"Buyer approved commercial-type safety belts shall be provided on  
all crew seat accommodations."

Add the following to the end of the paragraph:

"Buyer furnished passenger seats shall include passenger safety  
belts."



Page 101, Paragraph 3.23.2 EQUIPMENT INTERCHANGEABILITY:

Delete the following under "a. Interchangeable Parts:"

"Passenger Seat Assembly LH - Passenger Seat Assembly RH"

Page A-1, APPENDIX I-A, BUYER FURNISHED - CONVAIR INSTALLED:

Add the following items under "FURNISHINGS":

"45 Double Seats (Incl. footrests for 41 double seats, and safety belts, incl. floor and sidewall attach fittings)	2,377.0
1 Double Seat Aft Facing Special, L.H. Forward (Incl. safety belts, and floor and sidewall attach fittings)	70.0
4 Food Tray Closing Panels	6.0
82 Trays, Integral Folding	246.0
10 Plug-In Type Food Trays	20.0

Page A-24, APPENDIX I-C, FURNISHINGS:

Delete the following items from the Description List:

"86 Trays, Integral Folding	258.0
10 Plug-In Type Food Tray"	

Delete the below item in the Description List:

"45 Double Seats (Incl. footrests and safety belts)	2,385.0"
---	----------

Page A-25, APPENDIX I-C, FURNISHINGS:

Delete the below items under "Interior Trim"

"Seat Upholstering (Including lounge)	11.5 oz/sq yd
Seat Trim - Arm Rest	21.0 oz/sq yd

	<u>Weight</u>	<u>Effect on Balance</u>
Effect on Guaranteed Weight Empty:	0	0
Effect on Fixed Useful Load	0	0
Effect on Operating Weight Empty:	0	0
Effect on Performance:	None	

NOTE: The effects of CCP 38A-40A Combined are included in this Change.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,033 DTD 21 April 1959

CHANGE NO: 23B

MODEL: 30-5 (Convair "600")

TITLE: Wheels and Brakes, Bendix, Designation of

ORIGIN: R.F.C. No. 5-APP-2

REASON FOR CHANGE: To specify Bendix wheels and brakes in lieu of Goodyear wheels and brakes, and revision to CCP No. 23A

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Wheels and Brakes, Designation of

Origin: R.F.C. No. 5-APP-2

Reason for Change: To specify Bendix wheels and brakes in lieu of Good-year wheels and brakes, and revision to CCP No. 23A.

Description of Change:

Page 5, Paragraph 3.1.2.1 WEIGHT EMPTY:

Change the period at the end of paragraph to a comma and add the following:

" , except for those items identified by a single asterisk (\*) on Page A-23"

Page A-23, APPENDIX I-C, LANDING GEAR EQUIPMENT:

Change the below items in the Description List as follows:

<u>From:</u>	"8 Wheel, Main	Goodyear*	722.0
	8 Brake, Main Wheel	Goodyear*	1,502.0
	2 Wheel, Nose	Goodyear*	107.0
	2 Brake, Nose Wheel	Goodyear*	168.0"
<u>To:</u>	"8 Wheel, Main*	Bendix 152051	722.0
	8 Brake, Main Wheel*	Bendix 152052	1,502.0
	2 Wheel, Nose*	Bendix 152061	107.0
	2 Brake, Nose Wheel*	Bendix 152062	168.0"

Delete the following note from the bottom of Page A-23:

"\*Alternatively Goodrich or Bendix equipment may be selected by the Buyer subject to corresponding adjustment to the Weight Empty Guarantee."

Add the following note to the bottom of Page A-23:

NOTE: All items not identified by a single asterisk (\*) shall be subject to the weight adjustment specified in 3.1.2.1."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,025 DTD \_\_\_\_\_

CHANGE NO. 22

MODEL: 30-5 (Convair "600")

TITLE: Dual-Loop, A-C Fenwal Fire Detector System, Installation of

ORIGIN. RFC No. 55-19-101

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS.

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Dual-Loop, A-C Fenwal Fire Detector System, Installation of

Origin: RFC No. 55-10-101

Reason for Change: Customer request

Description of Change:

Page 89, Paragraph 3.19.4.2.1 GENERAL:

Revise the first sentence to read as follows:

"Dual-loop, A-C operated, discrete sensing, continuous-type fire detectors shall be installed in the pods and pylons, the engine compressor-accessory section, the engine burner and the turbine section."

Page A-27, APPENDIX I-C

Delete all items under "FIRE DETECTOR EQUIPMENT" and substitute the following:

"8	Control Unit	Fenwal
AR	Pin Plug	Fenwal
AR	Socket Receptacle	Fenwal
AR	Clamp	Fenwal
AR	Clamp	Fenwal
AR	Grommet	Fenwal
AR	Conn. Joint Plate	Fenwal
AR	Conn. Joint Bracket	Fenwal
AR	Connector Nut	Fenwal
AR	Sensing Element	Fenwal
AR	Sensing Element	Fenwal"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,024 DTD \_\_\_\_\_

CHANGE NO: 21

MODEL: 30-5 (Convair "600")

TITLE: Sperry SP30 Autopilot and Sperry Integrated Flight System, Installation of

ORIGIN: RFC No. 55-10-18

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BAL
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>-56.0 lb</u>	<u>-56.0 lb</u>	<u>-45,722</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS.

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Sperry SP30 Autopilot and Sperry Integrated Flight System, Installation of

Origin: RFC No. 55-10-18

Reason for Change: Customer request.

Page 29, Paragraph 3.10.4 AUTOMATIC CONTROL:

Change the first sentence to read as follows:

"A Sperry SP-30 autopilot, with Buyer-type of switching, shall be installed."

Page 44, Paragraph 3.14.1.1 PILOT'S INSTRUMENTS:

Change the fifth item in the instrument list as follows:

From: "One gyrosyn compass indicator"

To: "One radio magnetic direction indicator"

Page 44, Paragraph 3.14.1.2 COPILOT'S INSTRUMENTS:

Change the 12th item in the instrument list as follows:

From: "One gyrosyn compass indicator"

To: "One radio magnetic direction indicator"

Page A-8, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Change "REMOTE COMPASS SYSTEM SPERRY C-11" to read as follows:

"REMOTE COMPASS SYSTEM, SPERRY C-10 (modified for fixed latitude correction) CONSISTING OF:

2	Direction Gyro	Sperry	1776167-2
	Ref. Rack	Sperry	
2	Slaving Amplifier	Sperry	621107
2	Flux Valve	Sperry	620359
2	Servo Amplifier	Sperry	618379
2	C6A Modified Indicator	Sperry	*

\*Modified to remove all heading select features and adding compass power failure flag, integral and individual VOR/ADF switches, slaving cut-off switch and slaving annunciator."



## Page A-8 Cont, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Delete "BENDIX FLIGHT DIRECTOR SYSTEM (TYPE 200) CONSISTING OF", and all items and references listed thereunder, and substitute the following:

"SPERRY FLIGHT DIRECTOR SYSTEM (similar to Bendix Series 200) CONSISTING OF:

2	Horizon Director Indicator	Sperry	
2	Course Deviation Indicator	Sperry	
1	Flight Director Computer	Sperry	
2	Rack, Compass and Instr. Amp. (Inc. gyro amplifiers)	Sperry	
1	Vertical Gyro	Sperry	617926"

## Page A-11, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Delete "AUTO PILOT (BENDIX (E/P) TYPE PB-20)" and all of the items listed thereunder and substitute the following:

"AUTO-PILOT, SPERRY SP-30 (modified for the Convair "600", Model 30 airplane) CONSISTING OF:

1	Automatic Pilot Controller	Sperry	1776001-1*
1	Stabilization Computer	Sperry	1776002-3
1	Flight Control Computer	Sperry	1776003-1
1	Automatic Pilot Indicator	Sperry	1776004-1
1	Gain Calibrator	Sperry	1776710-03
3	Servo Bracket	Sperry	615144-01
3	Servo Drive	Sperry	615743-03
4	Linear Accelerometer	Sperry	615794-1
2	Linear Accelerometer	Sperry	615794-2
1	Vertical Gyro	Sperry	617926-1
1	Trim Servo Bracket	Sperry	1780310
1	Trim Servo Drive	Sperry	1778879-41

\*Controller layout shall be similar to Bendix panel 16906, for location of controls."

## Page 44a, INSTRUMENT PANEL ARRANGEMENT:

Above illustration will be revised as required to show the effects of this proposal.

Effect on Guaranteed Weight Empty:	-56.0 pounds
Effect on Operating Weight Empty:	-56.0 pounds
Effect on Balance:	-45,722 inch-pounds
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,023 DTD \_\_\_\_\_

CHANGE NO: 20

MODEL: 30-5 (Convair "600")

TITLE: Specification Administrative Change (Revision to landing gear equipment)

ORIGIN: RFC No. 55-8-12 and RFC No. 55-APP-14.

REASON FOR CHANGE: To supplement data submitted in CCP No. 9 and CCP No. 15.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	INCH LB.
See note on page 2 of CCP		

EFFECT ON GUARANTEED PERFORMANCE: \* None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	ENGINEERING APPROVAL
--	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_  
BY \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Revision to landing gear equipment)

Origin: RFC No. 55-8-12 and RFC No. 55-APP-14.

Reason for Change: To supplement data submitted in CCP No. 9 and CCP No. 15.

Description of Change:

Page 24, Paragraph 3.8.2.2 WHEELS, BRAKES AND BRAKE CONTROL SYSTEMS:

Change the following in the first sentence:

From: "Type VII, H.P. 41 by 14.5-16"

To: "Type VIII, H.P. 41 x 15-18"

Page 24, Paragraph 3.8.2.3 TIRES:

Change the following in the second line:

From: "Type VII, H.P., 41 by 14.5-16"

To: "Type VIII, H.P. 41 x 15-18"

Page A-23, APPENDIX I-C, LANDING GEAR EQUIPMENT:

Change the below items in the Description List as follows:

<u>From:</u>	"8 Tires, Main Wheel (41 x 14.5-16)	U.S.Rubber	Type VII HP22RR	936.0"
<u>To:</u>	"8 Tires, Main Wheel (41 x 15-18, Tread depth .38, 200 mi/hr).	Firestone $\phi$	Type VIII HP20PR	
		Goodrich $\phi$	126.0	1008
		**Goodyear $\phi$	124.0	992
		U.S.Rubber $\phi$	120.0	960
			129.6	1036.8"
<u>From:</u>	"2 Tire, Nose Wheel 29 x 7.7)	U.S.Rubber	Type VII HP16PR	91.0"
<u>To:</u>	"2 Tires, Nose Wheel (29 x 7.7, Tread depth .32, 200 mi/hr)	Firestone $\phi$	Type VII HP16PR	
		**Goodrich $\phi$	43.1	86.2
		Goodyear $\phi$	42.0	84.0
		U.S.Rubber $\phi$	43.0	86.0
			42.33	84.66"



Add the following notes to the bottom of Page A-23:

\*\*Manufacturer's Weight Empty guarantee includes the weight of the lightest tires. The manufacturer's weight empty guarantee will be adjusted for each airplane by the amount of variance from the lightest tire weights shown.

Ø Twenty-five percent of total tires for main and nose wheels shall be provided by each of the four vendors indicated. However, each airplane shall be equipped only with a specific vendor furnished set of tires."

Effect on Weight Empty: See above note  
Effect on Balance:  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,057 DTD \_\_\_\_\_

CHANGE NO: 19E

MODEL: 30-5 (Convair "990")

TITLE: Specification Administrative Change (Manufacturer's Name and/or Part Number)

ORIGIN: Convair initiated

REASON FOR CHANGE: To bring Appendix Section of Specification up-to-date.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*G. Brand*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Airlines Inc.  
Change No. 19E

Page 1 of 7

Title: Specification Administrative Change (Manufacturer's Name and/or Part Number)

Origin: Convair initiated

Reason for Change: To bring Appendix Section of Specification up-to-date.

Description of Change:

Page A-1, APPENDIX I-A, "FURNISHINGS"

Change the following:

<u>From:</u>	2	#Visor, Sun (Pilot Compartment)		2.0
<u>To:</u>	2	#Visor, Sun (Pilot Compartment)	Boeing 69-2524-3	2.0

Page A-7, APPENDIX I-C, under "POWER PLANT EQUIPMENT"

Change the following:

<u>From:</u>	4	Transmitters, Fuel Flow	Gen. Electric	8TJ59GAM-1
<u>To:</u>	4	Transmitters, Fuel Flow	Gen. Electric	8TJ59GAX-3
<u>From:</u>	4	Starter, Air Turbine	AiResearch	351810
<u>To:</u>	4	Starter, Air Turbine	AiResearch	359009

Change the following under "FUEL SYSTEM EQUIPMENT"

<u>From:</u>	2	Pump, Fuel Jettison and Supply	Thompson-Ramo	202400
<u>To:</u>	2	Pump, Fuel Jettison and Supply, consisting of:	Thompson-Ramo	202400
		2 Motor and Impeller Assy	Thompson-Ramo	206600-2/-1
		2 Housing	Thompson-Ramo	206700

Page A-16, APPENDIX I-C, INSTRUMENTS and RELATED EQUIPMENT

Change the following under "ENGINE INSTRUMENTS - OIL SYSTEM"

CONVAIR: SD

American Airlines Inc.  
Change No. 19E

Page 2 of 7

From: 4 Transmitter, Oil  
Quantity

Convair 30-2468

4 Transmitter, Oil  
Quantity

Simmonds 391080-02550

Page A-17, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT

Change the following under "HYDRAULIC AND PNEUMATIC"

From: 2 Indicator, Hydraulic  
Pressure

U. S. Gauge Type SRL-07J

To: 2 Indicator, Hydraulic  
Pressure

U. S. Gauge Type SR-07A

Page A-18, APPENDIX I-C, ELECTRICAL EQUIPMENT

Change the following under "ELECTRICAL POWER EQUIPMENT"

From: 4 Transformer - Rectifier

Chatham 28VS50

To: 5 Transformer - Rectifier

Gen. Electric 6RW176YN1

Delete: 1 Transformer - Rectifier  
Approx. 25V, 28 Amp.

Elec. Spl. Co.

From: 1 Power Pack, Static In-  
verter (900 Volt-Amp.  
Approx.)

Leland Elec.



<u>To:</u>	1	Power Pack, Static In- verter (750 Volt-Amp. Approx.)	Gen. Electric	3S206CDV101A1
<u>From:</u>	4	Contactor, Generator Line and Bus Tie	Gen. Electric	729C572
<u>To:</u>	4	Contactor, Generator Line and Bus Tie	Hartman	B-124A
<u>From:</u>	2	Contactor, External Power	Gen. Electric	729C574
<u>To:</u>	2	Contactor, External Power	Hartman	B-125C
<u>From:</u>	2	Relay, Phase Sequence	Gen. Electric	729C573
<u>To:</u>	2	Relay, Phase Sequence	Hartman	AVR-869
<u>From:</u>	4	Load Controller, Con- stant Speed Drive	Gen. Electric	7TAR10A01
<u>To:</u>	4	Load Controller, Con- stant Speed Drive	Minn. Honeywell	31357E

Page A-20, APPENDIX I-C, ELECTRICAL EQUIPMENT

Add the following under "EXTERIOR LIGHTS"

2	Taxi Light	Grimes Mfg.	30950-4551
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Page A-25, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"

<u>From:</u>	2	Damper - Gust and Con- trol Stop Aileron	Drescher	60070-1
<u>To:</u>	2	Damper - Gust and Con- trol Stop Aileron	Drescher	60070-3

Page A-26, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"

From: 2 Valve - Sequence, MLG  
To: 2 Valve - Sequence, MLG Vinson A90127

## Page A-27, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"

From: 2 Cylinder - MLG National Waterlift L-155610  
To: 2 Cylinder - MLG National Waterlift 1556  
From: 4 Cylinder - Spoiler, Inboard Thompson K42281  
To: 4 Cylinder - Spoiler, Inboard CVAC 30-84020-1  
From: 1 Reservoir - System No.1 Airite 6311-5  
To: 1 Reservoir - System No.1 Airite 6311-9

## Page A-29, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT

Change the following:

From: 4 Bleed Air Pressure Reg. Shutoff and Check AiResearch 108916-400  
To: 4 Bleed Air Pressure Reg. Shutoff and Check AiResearch 108916-1  
From: 1 Cab Outflow Valve Control AiResearch 102290-2  
To: 1 Cab Outflow Valve Control AiResearch 102290-3  
From: 1 Control Box, Windshield (Ctr) Mag. Controls 30-06429-19  
1 Control Box, Windshield (Main) Mag. Controls 30-06429-21  
1 Control Box, Windshield (Sliding) Mag. Controls 30-06429-23



	1	Control Box, Wind- shield (Aft)	Mag. Controls	
<u>To:</u>	1	Control Box, Wind- shield (Ctr)	Mag. Controls	22-06429-33
	2	Control Box, Wind- shield (Main)	Mag. Controls	22-06429-35
	1	Control Box, Wind- shield (Sliding)	Mag. Controls	22-06429-31
	1	Control Box, Wind- shield (Aft)	Mag. Controls	22-06429-37
<u>Delete:</u>	2	Heater, Electric (Dual)	Western Gear	59-381

Page A-30, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDIT-  
TIONING EQUIPMENT:

Change the following:

<u>From:</u>	1	Control, Cabin Tem- perature		
	4	Sensor, Cabin Temp. Control		
	1	Power Supply, Cabin Temp. Control		
	1	Power Supply, Pilot Comp. Temp. Control		
<u>To:</u>	1	Control, Cabin Tem- perature	Mag. Controls	
	4	Sensor, Cabin Temp. Control	Mag. Controls	
	1	Power Supply, Cabin Temp. Control	Mag. Controls	PS60A-1
	1	Power Supply, Pilot Comp. Temp. Control (Ground heating)	Mag. Controls	

Page A-31, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDIT-  
TIONING EQUIPMENT

Change the following:

<u>From:</u>	2	Supercharger Pack	Ham. Standard	555150
<u>To:</u>	2	Supercharger Pack	Ham. Standard	550150

<u>From:</u>	2	Temperature Control	Ham. Standard	522828
<u>To:</u>	2	Temperature Control Cabin and Flight Deck	Ham. Standard	555653
<u>From:</u>	2	Sequencing Device (EL)	Ham. Standard	545285
<u>To:</u>	2	Sequencing Device (EL)	Ham. Standard	562323
<u>From:</u>	2	S/C Shutoff	Ham. Standard	535460
<u>To:</u>	2	S/C Shutoff Valve	Ham. Standard	535460
<u>From:</u>	6	6-Inch Check	Ham. Standard	555000
<u>To:</u>	6	6-Inch Check Valve	Ham. Standard	555000
<u>From:</u>	3	6-Inch Shutoff	Ham. Standard	548328
<u>To:</u>	3	6-Inch Shutoff Valve	Ham. Standard	548328
<u>From:</u>	1	Recirculating Fan Duct	Ham. Standard	
<u>To:</u>	1	Recirculating Fan Duct	Ham. Standard	553978
<u>From:</u>	2	Cond. Air Mod.	Ham. Standard	548333
<u>To:</u>	2	Cond. Air Mod. Valve	Ham. Standard	548333
<u>From:</u>	2	Cond. Air Ground Shutoff	Ham. Standard	548332
<u>To:</u>	2	Cond. Air Ground Shut- off Valve	Ham. Standard	548332

Page A-32, APPENDIX I-C, LANDING GEAR EQUIPMENT

Change the following:

<u>From:</u>	1	Nose Wheel Steering	Cleveland	
<u>To:</u>	1	Nose Wheel Steering	Cleveland	1278
<u>From:</u>	4	Switch.	Electro Snap	30-06406-1 30-06402-1 30-06405-1 22-06477-3



<u>To:</u>	4	Switch	Electro Snap	30-06406-3 30-06402-1 30-06405-1 22-06477-3
------------	---	--------	--------------	--

## Page A-33, APPENDIX I-C, CONTROL SYSTEMS

Change the following:

<u>From:</u>	1	Horizontal Stabilizer Emergency Drive Motor	Lear	30A-22AP-1
<u>To:</u>	1	Horizontal Stabilizer Emergency Drive Motor	Lear	301535
<u>From:</u>	1	Irreversible Quadrant, Speed Brake	Reid Metals	22-04413-3
<u>To:</u>	1	Irreversible Quadrant, Speed Brake	Reid Metals	22-04413-7
<u>From:</u>	1	Landing Gear Control Lever	Langley	22-04405-7
<u>To:</u>	1	Landing Gear Control Lever	Langley	22-04405-11

## Page A-38, APPENDIX I-C, FIRE EXTINGUISHING EQUIPMENT

Change the following:

<u>From:</u>	4	Check Tee, Fire Extinguisher	Walter Kidde	872601
<u>To:</u>	8	Check Tee, Fire Extinguisher	Walter Kidde	872601
<u>From:</u>	AR	Flashers, Overheat	Access. Prod.	
<u>To:</u>	AR	Flashers, Overheat	Radar Relay Inc.	R1318

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,057 DTD \_\_\_\_\_

CHANGE NO: 19C

MODEL: 30-5 (Convair "600")

TITLE: Manufacturer's Name and/or Part Number

ORIGIN: American Airlines/Convair Meeting of 25 February and 1 March 1960

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
O	O	

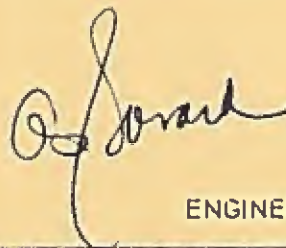
EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Change Orders #12, #13 and #14.



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>PROPULSION EQUIPMENT</u>				
4	Engine, complete (dry) Includes items of standard equipment as listed in G.E. Spec. E-739b dated 11-28-58	Gen. Electric	CJ-805-21 E-739b dated 11-28-58	15,000
<u>FURNISHINGS</u>				
4	Buffets (including provisions for Buyer furnished items noted in Appendix I-B) Vacuum cleaner outlets of 115v 400 cycle rating shall be included in the buffets, as required			900.0
1	Check-off Lists, Mechanical Lighted	Plastek Inc.	4793	1.0
2	*First Aid Kits	AAL	CLC-1007	5.0
2	Crew Nameplate Holder		EBA-1156	1.0
1	Altimeter (Three-Pointer-Type)	Kollsman	671CPL-10-051	3.8
2	#Visor, Sun (Pilot Compartment)			2.0
2	Plaque, Eagle	U. S. Bronze Sign Co.	AAL001-T-1013	1.0
<u>OXYGEN EQUIPMENT</u>				
5	Hose, Oxygen Sub-Assy	Sierra	232-212)	9.0
5	Goggles, Crew Smoke	Bausch & Lomb	IR-5835)	

\*Fixed Useful Load Item

#Convair will provide a 3/8-inch diameter tubing installation to accommodate clamp-on type sun visors having a maximum distance of ten inches across the clamps.

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SAN DIEGO

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MODEL 30  
DATE

APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>VHF NAVIGATION SYSTEM</u>				
2	Receiver	Collins	51R-3	59.0
1	Unit Accessory (To include)	Collins	351A-1	7.3
2	Power Supply	Collins	416N-5	16.4
2	OBI Indicator	Collins	337A-2	5.0
<u>RADIO COMPASS (ADF)</u>				
2	Receiver	Collins	51Y-3	38.0
2	Antenna Loop (Flush)	Collins	137A-2	16.6
2	Susceptiformer	Collins	179J-1	2.8
<u>MARKER BEACON</u>				
1	Receiver (To include)	Bendix	MKA-7A-1	6.5
1	Power Supply	Bendix	PSA-7A-1	2.0
<u>INSTRUMENT LANDING SYSTEMS (ILS)</u>				
2	Receiver Glide Slope (To include)	Collins	51V-3	13.6
2	Power Supply (AC)	Collins	516A-1	1.6



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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>VHF COMMUNICATION</u>				
2	Transmitter (To include)	Bendix	TA-20B/ TA-20B-1 }	55.0
2	Power Supplies	Bendix	PSA-20A	
2	Receiver (To include)	Bendix	RA-18C-2 or -3	35.5
2	Power Supplies	Bendix	MP-89-B	7.4
<u>DISTANCE MEASURING EQUIPMENT TACAN</u>				
2	Interrogator	Federal	AFN-3544	60.0
2	Indicators	Federal	AIN-100	5.0
<u>ATC TRANSPONDER BEACON</u>				
1	Transponder Unit	Collins	621A-2	25.0

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DATE

## APPENDIX I-A

### BUYER FURNISHED - CONVAIR INSTALLED

#### ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>P.A. SYSTEM</u>				
2.0.1 3/12 2/74 3/102	1 Tape Reproducer	Presto/ Gables	MPB-601/ G-825	22.0 23.0
	1 Amplifier	Telephonics/ Gables	30110-1/ G-935	16.3 16.3
	*3 Microphone	Telephonics	RS-38E	1.5
<u>INTERPHONE SYSTEM (SERVICE)</u>				
2/74	*3 Handsets	Telephonics	TC-158-0	3.4
	1 Amplifier	Telephonics	20035-1	1.4
<u>INTERPHONE SYSTEM (FLIGHT)</u>				
18B 4	2 Speaker-Amplifier	Telephonics	20034	6.0
	*5 Microphone	Telephonics	RS-38E	2.5
	5 Headphone	Telephonics	TH-37B	5.0
<u>WEATHER RADAR</u>				
4/15 3/103	1 Transmitter-Receiver	RCA	MI37570-3	42.6
	1 Unit, Accessory	RCA	MI37549-2	33.0
	1 Indicator	RCA	MI37524-5	10.0
	1 Antenna Assembly (To include)	RCA	MI37588-3)	22.0
	1 Antenna Waveguide	RCA	MI37550	
	1 Antenna Dust Cover	RCA	MI37537	
	1 Antenna Reflector (34-Inch)	RCA	MI37515	4.9
	1 Indicator Hood	AAL	CDF-3257	0.5
<u>SELECTIVE CALLING</u>				
	1 Sel-Cal Unit	Motorola	TA-150	11.5

\*NOTE: The jack for the microphone shall be Switchcraft P/N C-12B or equivalent. The jack for the handset shall be Switchcraft P/N 12B or equivalent.



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MODEL 30  
DATE

## APPENDIX I-A

### BUYER FURNISHED - CONVAIR INSTALLED

#### ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>CONTROL PANELS</u>				
2	VHF Comm/VHF NAV (ILS, DMET)	Gables	G-437V	4.0
2	Frame Assembly	Gables	G-550X5A	0.6
1	Weather Radar	Gables	G-436	2.3
1	Frame Assembly	Gables	G-550X3A	0.3
2	Radio Compass (ADF)	Collins	614L-5	5.0
2	Frame Assembly	Collins	351C-1	14.6
5	Audio Selector Panels	Gables	G-477	15.5
5	Frame Assembly	Gables	G-550X8A	2.0
1	ATC Beacon	Gables	G-440V-1	1.5
1	Frame Assembly	Gables	G-550X3E	0.3
1	Selcal	Gables	G-468	2.0
1	Frame Assembly	Gables	G-550X3B	0.3
<u>FLIGHT RECORDER</u>				
1	Flight Data Recorder	Lockheed Air Service	4001550 (Model C)	28.2
1	Amplifier	Lockheed Air Service	4001551	3.8

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APPENDIX I-B

BUYER FURNISHED - BUYER INSTALLED

FURNISHINGS EQUIPMENT



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,057 DTD \_\_\_\_\_

CHANGE NO: 19B

MODEL: 30-5 (Convair"600")

TITLE: Manufacturer's Name and/or Part Number

ORIGIN: Convair initiated.

REASON FOR CHANGE: To bring APPENDIX section of specification up to date.

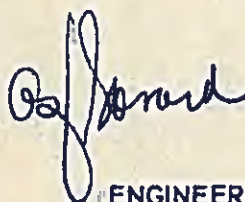
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

Quan Reqd	Description	Manufacturer	Part or Spec.No.	Total Weight (lb)
--------------	-------------	--------------	---------------------	-------------------------

PROPULSION EQUIPMENT

4	Engine, complete (dry) Includes items of standard equipment as listed in G.E. Spec. E-739b dated 11-28-58	Gen. Electric	CJ-805-21 E-739b dated 11-28-58	15,000
---	--	---------------	--	--------

FURNISHINGS

4	Buffets (including pro- visions for Buyer furnished items noted in Appendix I-B) Vacuum cleaner outlets of 115v 400 cycle rating shall be included in the buffets, as required.			900.0
1	Check-off Lists, Mechanical Lighted	Plastek Inc	4793	1.0
2	*First Aid Kits			5.0
1	Crew Nameplate Holder	EBA-1156		0.5
1	Altimeter (Three-Pointer-Type)	Kollsman	671CPL-10- 051)	3.8
2	Visor, Sun (Flight Compartment)			1.2
2	Emblem, AAL			2.0

OXYGEN EQUIPMENT

5	Hose, Oxygen Sub-Assy	Sierra	232-212 )	9.0
5	Goggle, Crew Smoke	Sierra	322-01 )	

\*Fixed Useful Load Item



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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Wt. (lb)
<u>VHF NAVIGATION SYSTEM</u>				
2	Receiver	Collins	51R-3	59.0
1	Unit Accessory (To include)	Collins	351A-1	7.3
2	416N-5 Power Supply	Collins		16.4
2	337A-2 OBI Indicator	Collins		5.0
2	333B-1 Servo Amplifiers	Collins		6.0
<u>RADIO COMPASS (ADF)</u>				
2	Receiver	Collins	51Y-3	38.0
2	Antenna Loop (Flush)	Collins	137A-2	16.6
2	Susceptiformer	Collins	179J-1A	2.8
<u>MARKER BEACON</u>				
1	Receiver	Bendix	MKA7-1	6.5
1	Power Supply	Bendix	PSA7-A	2.0
<u>INSTRUMENT LANDING SYSTEMS (ILS)</u>				
2	Receiver Glide Slope	Collins	51V-3	13.6
2	Power Supply (AC)	Collins	516A-1	1.6

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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>	<u>Total</u> <u>Weight</u> <u>(lb)</u>
<u>VHF COMMUNICATION</u>				
2	Transmitter	Bendix	TA20B-1	55.0
2	Power Supplies	Bendix	P8A20-A	
2	Receiver	Bendix	RA18C-3	35.5
2	Power Supplies	Bendix	MP-89-B	7.4
<u>DISTANCE MEASURING EQUIPMENT TACAN</u>				
2	Interrogator	ARINC	521B	60.0
2	Indicators	ARINC	521B	5.2
<u>ATC TRANSPONDER BEACON</u>				
1	Transponder Unit	Collins	621A-1	25.0



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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<u>P.A. SYSTEM</u>				
1	Tape Reproducer	Presto	MPB-601	22.0
1	Amplifier	Telephonics	30110-1	16.3
*3	Microphones	Telephonics	RS-38E	1.5
<u>INTERPHONE SYSTEM (SERVICE)</u>				
*3	Handsets	Telephonics	TC-158-0	3.4
1	Amplifier	Telephonics	20035-1	1.4
<u>INTERPHONE SYSTEM (FLIGHT)</u>				
2	Speaker-Amplifier	Telephonics	20034	6.0
*5	Microphone	Telephonics	RS-38E	2.5
5	Headphone	Telephonics	TH37B	5.0
<u>WEATHER RADAR</u>				
1	Transmitter-Receiver	RCA	MI37570-3	42.6
1	Unit, Accessory	RCA	MI37549-2	33.0
1	Indicator	RCA	MI37524-5	16.0
1	Antenna Assembly	RCA	MI37588	22.0
1	Antenna Waveguide	RCA	MI37550	
1	Antenna Dust Cover	RCA	MI37537	
1	Antenna Reflector (34 Inch)	RCA	MI37515	4.9
1	Indicator Hood	AAL	DBA-1019	0.5
<u>SELECTIVE CALLING</u>				
1	Sel-Cal Unit	Motorola	TA-150	11.5

\*NOTE: The jack for the microphone shall be Switchcraft P/N C-12B or equivalent. The jack for the handset shall be Switchcraft P/N 12B or equivalent.

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APPENDIX I-A

BUYER FURNISHED - CONVAIR INSTALLED

ELECTRONICS EQUIPMENT (Cont)

Quan Reqd	Description	Manufacturer	Part or Spec. No.	Total Weight (lb)
<u>CONTROL PANELS</u>				
2	VHF Comm/VHF NAV (ILS, DMET)	Gables	G-437V	4.0
2	Frame Assembly	Gables	G-550X5A	0.6
1	Weather Radar	Gables	G-436	2.3
1	Frame Assembly	Gables	G-550X3A	0.3
2	Radio Compass (ADF)	Collins	614L-5	5.0
2	Frame Assembly	Collins	351C-1	14.6
5	Audio Selector Panels	Gables	G-477	15.5
5	Frame Assembly	Gables	G-550X8A	2.0
1	ATC Beacon	Gables	G-440V-1	1.5
1	Frame Assembly	Gables	G-550X3E	0.3
1	Selcal	Gables	G-468	2.0
1	Frame Assembly	Gables	G-550X3B	0.3
<u>FLIGHT RECORDER</u>				
1	Flight Data Recorder	Arinc	541 )	55.0
1	Flight Data Accessory Unit	Arinc	541 }	
1	Acceleration Sensor	Arinc	541 }	

0.1  
/15



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APPENDIX I-B

BUYER FURNISHED - BUYER INSTALLED

FURNISHINGS EQUIPMENT

APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

NOTE: This appendix lists major items of equipment supplied by Convair. The Seller reserves the right to select, specify, assign parts and manufacturers' weights and part numbers where such items are not now shown herein.

PROPULSION EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>POWER PLANT EQUIPMENT</u>			
4	Transmitters, Fuel Flow	Gen. Electric	8TJ59GAM-1
4	Thrust Measuring Units (Transmitter)		
4	Starter, Air Turbine	AIResearch	351810
4	Valve, Starter	AIResearch	105492
4	Valve, Aspirator Shutoff and Vortex Dest. Shutoff	Pneu-Tech	21006
4	Reverser, Thrust	Gen. Electric	R-751
AR	Relay, Engine Start	Leach	9224-4036
		Leach	9220-4830
			9224-4151

FUEL SYSTEM EQUIPMENT

5	Valve, Fuel Tank Shutoff, Motor Oper.	Gen. Controls	AV16E1137B
2	Pump, Fuel Jettison and Supply	Thompson-Roma	202400
2	Hose Assembly, 3/8 Inch Drain Boost Pump Inboard	Stratoflex	124745
1	R/H Hose Assembly, Inboard Anti-Shock Body to Wing, 2-1/2-Inch Vent Line		
1	L/H Hose Assembly, Inboard Anti-Shock Body to Wing, 2-1/2-Inch Vent Line		
1	R/H Hose Assembly Inboard Anti-Shock Body to Wing 3 Inch Vent Line		



APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

PROPULSION EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>FUEL SYSTEM EQUIPMENT (Cont)</u>			
1	L/H Hose Assembly, Inboard Anti-Shock Body 3-Inch Vent Line		
4	Adapter, Pressure Refuel	Access. Prod.	704500-1
2	Hose Assembly, Inboard Anti-Shock Body to Wing, 1-1/2-inch Fuel Line		
2	Hose Assembly, 3/8 inch Drain Boost Pump Inboard	Stratoflex	124745
4	Adapter Cap, Pressure Refuel	Access. Prod.	704500-3
10	Valve, Solenoid, Refuel Shutoff	Padway Aircraft	2095
1	Valve, Chec, Overwing Refuel	Access. Prod.	321700
2	Nozzle, Fuel Jettison	Aircraft Mech. Inc.	737
1	Cell #1, Fuel Tank, Wing Center Section	Firestone	37801
1	Cell #2, Fuel Tank, Wing Center Section	Firestone	37802
1	Cell #3, Fuel Tank, Wing Center Section	Firestone	37803
1	Cell #4, Fuel Tank, Wing Center Section	Firestone	37804
1	Cell #5 Fuel Tank Wing Center Section	Firestone	37805
1	Diaphragm, Anti-Shock Body Outboard L/H	Firestone	37808-1
1	Diaphragm, Anti-Shock Body Outboard R/H	Firestone	37808-2
14	Valve, Drain, Float, Actuated, 3/8-Inch	Parker	1119-595907
9	Cap, Overwing Emergency Re- fueling	Gabb Special Prod.	FC-3500-96
7	Adapter, Overwing Emergency Refueling	Gabb Special Prod.	37477-7
2	Adapter, Overwing Emergency Refueling	Gabb Special Prod.	37477-9
2	Pump, Fuel Jettison	J.C. Carter	6191-5
2	Pump, Fuel Jettison	J.C. Carter	6191-6



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CONVAIR FURNISHED - CONVAIR INSTALLED

PROPULSION EQUIPMENT

<u>Quan Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec. Number</u>
<u>FUEL SYSTEM EQUIPMENT (Cont)</u>			
2	Pump, Fuel Jettison	J.C. Carter	6191-13
20	Pump, Booster & Trans. Engine Motor Assembly		TB14100-4
20	Pump, Booster & Trans. Engine, Housing		TB139900-2
8	Valve, Flapper Boost Pump Baffle Fuel	Access Prod.	320600
2	Valve, Flapper Boost Pump, Baffle Fuel	Access Prod.	320700
2	Valve, Flapper Boost Pump, Baffle Fuel	Access Prod.	330400
1	Bulb, Temp. Fuel Elect Resistance	Lewis Eng. Co.	56B3A
14	Valve, Fuel Shutoff, Motor Operated	W.R. Whittaker	131805-1
6	Valve, Drain, Fuel, Wing	Access. Prod.	771100-5
12	Valve, Drain, Fuel, Wing	Access. Prod.	771100-19
4	Valve, Fuel Tank Vent, 1.50 inch	Schulz	20-657-1
8	Valve, Check, Eng. Fuel Supply, 1-1/2 inch with Drain Boss	Access. Prod.	318600-31
8	Valve, Check, Eng. Fuel with Restrictor and Drain Hole Supply, 1-1/2 inch	Access. Prod.	318600-13
4	Valve, Check, Eng. Fuel Supply, 1-1/2 inch with Restrictor	Access. Prod.	318600-15
6	Valve, Shutoff, Fuel Jettison	Access. Prod.	730600
8	Valve, Check, Overwing Refuel	Access. Prod.	703700
10	Valve, Drain, Jettison, Fuel	Parker Aircraft	1112-578789
4	Valve, Drain, Refuel Manifold 3/8 inch Ports	Parker Aircraft	1112-598789
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02143



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### CONVAIR FURNISHED - CONVAIR INSTALLED

#### PROPULSION EQUIPMENT

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>
<u>FUEL SYSTEM EQUIPMENT (Cont)</u>			
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02144
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02145
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02147
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02148
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02149
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02150
2	Valve, Drain, Fuel, Wing	Access Prod.	771000
4	Valve, Drain, Fuel, Wing	Access Prod.	771100-21
1	Valve, Check, over Wing Refuel Center Section Auxiliary Tank	Access Prod.	321700
5	Compensator, Fuel Dielectric Index	Simmonds	300047-13001
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02152
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02277
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02279
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02280
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02281
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02282
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02283
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02284



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### CONVAIR FURNISHED - CONVAIR INSTALLED

#### PROPULSION EQUIPMENT

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>
<u>FUEL SYSTEM EQUIPMENT (Cont)</u>			
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02286
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02288
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02758
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02760
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02240
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02241
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02242
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02243
1	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02244
1	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02244
1	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02245
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02246
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02236
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02237
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02265
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02266
2	Sensing Unit, Fuel Qty, Fuel Tank	Simmonds	381056-02238



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CONVAIR FURNISHED - CONVAIR INSTALLED

PROPULSION EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>FUEL SYSTEM EQUIPMENT (Cont)</u>			
4	Screen, Bellmouth, Fuel Jet- tison Pump	Wemac Co.	2557-1
4	Screen, Bellmouth, Fuel Jet- tison Pump	Wemac Co.	2557-3
10	Switch, Fuel Boost Pump, Pressure	Hydra-Electric	40113
9	Valve, Fuel Tank Vent, 2-Inch	Schulz	5-357-1
6	Valve, Check, Fuel, 2-Inch	Access. Prod.	317000-3
5	Valve, Refuel Shutoff, Dual Pilot Oper.	Schulz	2-155-61
5	Valve, Pilot Refueling	Schulz	2-153-61
2	Rose Assembly, Drain. Boost Pump Outboard	Aeroquip	666797-1
12	Switch, Pressure, Fuel Transfer Pump	Hydra-Electric	40120
5	Switch, Pressure, Refuel Flow	Hydra-Electric	32038
10	Strainer, 3/8-Inch Fuel Line	Access. Prod.	904900
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-11
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-77
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-79
1	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-81
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-85
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-87
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-89
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-91
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-93
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-99
2	Gage, Liquid Sight, Fuel Qty	Access. Prod.	728100-97
4	Valve, Check Float Actuated Fuel 3-Inch	Parker Aircraft	1119-595073
8	Valve, Check Float Actuated, Fuel 3/8-Inch	Parker Aircraft	1119-578331



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CONVAIR FURNISHED - CONVAIR INSTALLED

INSTRUMENTS AND RELATED EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>FLIGHT INSTRUMENTS</u>			
2	Clock (3-Inch Size)	Wakmann	618-12-24-10
1	Compass, Magnetic	U.S. Gauge	C-5A
2	Indicator, Rate of Climb	Specialties	SLZ 9068
2	Indicator, Turn and Bank	Pioneer	3919-1AE-B1-1
2	Sets Indicator Light Marker Beacon	Korry	ST130 SHCP (White) ST130 SHAP (Amber) ST130 SHLBP (Blue)
1	Indicator, Flap Position (Dual)	U.S. Gauge	SRD-12C
2	Transmitter, Flap Position	U.S. Gauge	
2	Detector Unit, Power Failure	Hartman	AVR-869
2	Pitot Tube	Kollsman	A34110-00-003
1	Valve, Pitot Static Aux. Equipment Shutoff	Republic Mfg.	12-2057-7
2	Valve, Normal and Alternate Static Select	Kohler Co.	K-4566-2
AR	Hose, Flexible Pitot	Zep Aero	ZH-513
AR	Hose, Flexible Static	Zep Aero	ZH-512
1	Indicator, Ram Air Temp.	Lewis	161C20B
1	Bulb	Lewis	54B-1A
1	Indicator, Longitudinal Trim	U.S. Gauge	SR-012B

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CONVAIR FURNISHED - CONVAIR INSTALLED  
INSTRUMENTS AND RELATED EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>REMOTE COMPASS SYSTEM, SPERRY C-10</u> (Modified for fixed latitude correction) Consisting of:			
2	Direction Gyro	Sperry	613260-2
Ref.	Rack	Sperry	
2	Slaving Amplifier	Sperry	621107
2	Flux Valve	Sperry	620359
2	Servo Amplifier	Sperry	618379
2	Indicator, Radio Magnetic Direction, Type C6E	Sperry	1781705-601
<u>KOLLSMAN INTEGRATED FLIGHT IN-</u> <u>STRUMENT SYSTEM, Consisting of:</u>			
		Kollsman	Type KS-86
2	Altimeter and Scale Error Cor- rector Package	Kollsman	B30086-10-001
2	Indicator, Airspeed Angle of Attack	Kollsman	
1	Indicator, True Airspeed	Kollsman	D25737-10-001
2	Indicator, Machmeter Synchronel Transmitter Type	Kollsman	C18135-10-009
1	Indicator, Master Static Air Temp.	Kollsman	C25725-10-001
1	Control Chassis Includes: (2) Computer Unit Pilot Type Copilot Type (8) Amplifier, Type BA27710	Kollsman Kollsman Kollsman Kollsman Kollsman	
1	Bulb, Temperature, Flush	Kollsman	68-01000-0302
1	Transmitter, Angle of Attack (LH)	Kollsman	68-40800-0502
2	Indicator, Airspeed Settable V2 Index Pointer	Kollsman	

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INSTRUMENTS AND RELATED EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
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SPERRY FLIGHT DIRECTOR SYSTEM (Similar to Bendix Series 200) Con-  
sisting of:

2	Horizon Director Indicator, HZ-5	Sperry	1781704-601
2	Course Deviation Indicator, R4B	Sperry	1776366-601
1	Flight Director Computer, Z5A	Sperry	1781706
2	Rack, Compass and Instrument Amp. (Inc. gyro amplifiers)	Sperry	614937-7
1	Vertical Gyro	Sperry	617926-1

ENGINE INSTRUMENTS - GENERAL

4	Indicator, Tachometer	Gen. Electric	8DJ81CAB-Y2
4	Indicator, Exhaust Gas Temp.	Gen. Electric	8DJ100AAA1
4	Indicator, Fan-Pressure Ratio	Kollsman	A32457-10-002
4	Indicator, Tachometer (Fan)	Lewis	
8	Switch, Main Fuel Pump Pressure	Aero Inst.	1B2522-9
4	Indicator, Fuel Flow	Gen. Electric	8DJ97GAA-1

INSTRUMENTS - FUEL SYSTEM

1	Indicator, Fuel Temperature	Lewis	162025
2	Indicator, Fuel Quantity Counter Pointer Type Tanks 1 and 4	Simmonds	383053-10828
2	Indicator, Fuel Quantity Counter Pointer Type Tanks 2 and 3	Simmonds	383053-10829
2	Indicator, Fuel Quantity, Re- fueling Tanks 1 and 4	Simmonds	383093-04831
2	Indicator, Fuel Quantity, Re- fueling Tanks 2 and 3	Simmonds	383093-04832
1	Indicator, Fuel Quantity Counter Pointer Type, Center Section Tank	Simmonds	383053-10830
AR	Probes, Fuel Quantity	Simmonds	
2	Indicator, Refueling Center Section Tank	Simmonds	383093-04833



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CONVAIR FURNISHED - CONVAIR INSTALLED

INSTRUMENTS AND RELATED EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
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ENGINE INSTRUMENTS - OIL SYSTEM

4	Indicator, Oil Quantity	Simmonds	393056-06835
4	Indicator, Oil Pressure	U. S. Gauge	SR-04A
4	Indicator, Oil Temperature	Lewis	162C23A
4	Transmitter, Oil Quantity	Convair	30-02468
4	Switch, Oil Low Pressure Warning	Hydra Electric	1023
4	Transmitter, Oil Pressure	U.S. Gauge	ST-104M
4	Bulb, Temperature Oil	Lewis	56B17
4	Indicator, Oil Quantity (At pod)	Simmonds	30-09413-1

AUTO-PILOT, SPERRY SP-30 (Modified for the Convair "600", Model 30  
Airplane) Consisting of:

1	Automatic Pilot Controller	Sperry	1776001-4
1	Stabilization Computer	Sperry	1776002-4
1	Flight Control Computer	Sperry	1776003-2
1	Automatic Pilot Indicator	Sperry	1776004-2
1	Gain Calibrator	Sperry	1776710-07
3	Servo Bracket	Sperry	615144-01
3	Servo Drive	Sperry	615743-03
4	Linear Accelerometer	Sperry	615794-1
2	Linear Accelerometer	Sperry	615794-2
1	Vertical Gyro	Sperry	617926-1

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CONVAIR FURNISHED - CONVAIR INSTALLED

INSTRUMENTS AND RELATED EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>PRESSURIZATION, HEATING AND AIR CONDITIONING</u>			
1	Indicator, Bleed Air Pressure		
1	Indicator, Cabin Temperature	Lewis	162C27
1	Indicator, Cabin Differential Pressure	Kollsman	254BK-10-0104
1	Indicator, Cabin Rate of Climb	Kollsman	D07165-10-005
1	Indicator, Dual, Cabin Super- charger Air Flow	Ham. Standard	537325
2	Indicator, Cabin Supercharger, RPM	Ham. Standard	535461
2	Indicator, Cabin Supercharger Bearing Temperature	Ham. Standard	
1	Indicator, Cabin Altitude	Kollsman	671 CPX-10-031
<u>HYDRAULIC AND PNEUMATIC</u>			
2	Indicator, Hydraulic Pressure	U. S. Gauge	Type SRL-07J
1	Indicator, Hydraulic Fluid Quantity (Dual)	Liquidometer	30-09415-1
2	Indicator, Hydraulic Fluid Temperature	Lewis	162C22A
1	Indicator, Emergency Air Brake Pressure	Rochester	6905-708
1	Indicator, Brake Hydr. Pressure	U. S. Gauge	SR-07C
1	Probe, Hydr. Fluid Quantity	Liquidometer	30-08501-1
1	Probe, Hydr. Fluid Quantity	Liquidometer	30-08501-1
1	Indicator, Bleed Air Pressure	U. S. Gauge	SR-05A



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CONVAIR FURNISHED - CONVAIR INSTALLED

ELECTRICAL EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>ELECTRICAL POWER EQUIPMENT</u>			
1	Battery Charger, 20 Amp.	Elec. Spl. Co.	PS-116
1	Battery, Storage, Nickel-Cadmium (27.5 Volt 13.5 A.H.)	Sonotone	CA-121
4	Alternator, 40 KVA, 6000 RPM, Approx. 115/200V 3Ø	Gen. Electric	2CM211A1
5	Relay, Reverse Current	Hartman	A-718K
4	Transformer-Rectifier	Chatham	28VS50
4	(Panel, AC Control		
	(Regulator, AC Voltage	Gen. Electric	3S2781F125A1
4	Drive, Constant Speed, Incl. Disconnect (Hydraulic)	Gen. Electric	2CLKH40B1
4	Air Oil Cooler, CSD	United Airc.	U-521773-1
4	Valve, CSD Air-Oil Cooler Shutoff	Schroeder Mfg.	C-151-01
4	Thermo-Sensor, CSD Oil System	Vapor Heating	25730055
4	Switch, Generator Load	Gen. Electric	7TAR11A01
1	Power Pack, Static Inverter (900 Volt-Amp. Approx)	Leland Elec.	
4	Static Exciter	Gen. Electric	3S2795H115A1
4	Contactor, Generator Line and Bus Tie	Gen. Electric	729C572
1	Panel, Synchronizing Bus Protective	Gen. Electric	3S2781M197A1
2	Contactor, External Power	Gen. Electric	729C574
2	Relay, Phase Sequence	Gen. Electric	729C573
4	Load Controller, Constant Speed Drive	Gen. Electric	7TAR10A01
AR	Passenger Call Switch	Marco	
1	Transformer-Rectifier, Approx. 25V, 28 Amp.	Elec. Spl. Co.	

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ELECTRICAL EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
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ELECTRICAL POWER EQUIPMENT (Cont)

1	Shunt, 50 MV, 75 Amp. (For battery ammeter)		MS91586-3
8	Transformer Unit; Current, Control and Protection	Gen. Electric	9JY25AA1
4	Transformer Unit, Current, Protection	Gen. Electric	9JY24BA1
1	Relay, DC Bus Connect	Leach	9207-5231
2	Transformer, 1 Phase, 115 to 26 Volts .100 KV-A	Osborne	6781
2	Transformer, 1 Phase, 115 to 28 Volts, 2.1 KV-A	Osborne	7188
1	Transformer, 1 Phase, 115 to 28 Volts .50 KV-A	Osborne	7199
1	Relay, 60 Amp, 3 Pole, 2 Throw	Hartman	BR-138A
2	Relay, Dual, 60 Amp, 3 Pole, Single Throw	Hartman	BR-140A
1	Voltmeter, DC, 0-45 Volts	Gen. Electric	8DW84V1AA1
4	Ammeter, DC, 0-75 Amps	Gen. Electric	8DW84A1AA1
1	Ammeter, DC, 75-0-75 Amps	Gen. Electric	8DW84A2AA1
1	Frequency Meter, AC, 370-410	Gen. Electric	8AW60F1AA1
1	Voltmeter, AC, 0-150 Volts	Gen. Electric	8AW61V1AA1
4	Ammeter, AC, 0-150 Amps	Gen. Electric	8AW61A1AA1
4	Meter, KW-KVAR	Gen. Electric	8AW62H1AA1
1	Relay, Battery Emergency	Leach	7064-758

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ELECTRICAL EQUIPMENT

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>
<u>ELECTRICAL POWER EQUIPMENT (Cont)</u>			
<u>EXTERIOR LIGHTS:</u>			
2	Wing Position Lights (L/R)	Grimes Mfg.	43200-21-4174 43200-22-4174
2	Landing Light, Retractable	Grimes Mfg.	40283A-4616
1	Rear Position Light	Grimes Mfg.	B7890-5
2	Wing Illumination Light	Grimes Mfg.	
1	Anti-Collision Light, Upper	Grimes Mfg.	G9775-21-7079
2	Anti-Collision Light, Lower	Grimes Mfg.	40045-1-7079
2	Auxiliary Landing and Signal Light	Grimes Mfg. and	40205-1-4559 40205-2-4559
4	Relay, Landing Light	Hartman	CR-16A
<u>PILOT COMPARTMENT LIGHTS:</u>			
2	Map Reading Lights, Adjustable (Pilot and Copilot)	Airite	7020-1 & -2
1	Map Reading Light, Adjustable (Observer)	Airite	7020-2
1	Table Light, Red and White, Dimmable (Flight Engineer)	Master Specialties	414-100-1 & -2
1	Table Light, Red and White, Dimmable (Third Pilot)	Grimes	A6850-1
1	Flight Engineer's Utility Light	Grimes Mfg.	
1	Flight Engineer's Fluorescent Lamp	Sylvania	F13T5-RS-WW

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#### ELECTRICAL EQUIPMENT

<u>Quan Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec. Number</u>
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#### ELECTRICAL POWER EQUIPMENT (Cont)

##### WARNING LIGHTS:

1	Master Warning, Press to Reset	Korry Mfg.	270-HV6-2
1	Essential Bus Failure	Korry Mfg.	ST753-TV2-4
1	Power Warning Failure, (Instruments)	Korry Mfg.	ST753-TV2-3
1	Landing Truck Position	Korry Mfg.	ST753-TV2-12
1	Landing Unsafe	Korry Mfg.	ST753-TV2-8
1	Landing Door	Korry Mfg.	ST753-TV2-9
1	R.H. Main, Down and Locked	Korry Mfg.	ST753-TV2-7
1	Nose Gear	Korry Mfg.	ST753-TV2-6
1	L.H. Main, Down and Locked	Korry Mfg.	ST753-TV2-5
4	Reverse Thrust and In-Transit	Korry Mfg.	ST260-2HV5-3
2	Agent Out	Korry Mfg.	ST260-2HV5-1
4	Oil Pressure Low	Korry Mfg.	ST136-MV1-36
1	Aldis Lamp	Grimes	D-5705-12

##### MISCELLANEOUS:

2	Stewardess Chime	Electro Switch	3001-3
1	MNE VNE Interrupter	Radar Relay Inc.	R1487

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ELECTRICAL EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>ELECTRICAL POWER EQUIPMENT (Cont)</u>			
<u>INTERIOR LIGHTS:</u>			
42	Cabin Cove Light	Luminator Inc.	
9	Cabin Aisle Light	Airite	
118	Passenger Reading Light		
1	Stewardess Annunciator		
4	Emergency Exit Light		
AR	Master Warn Box	Seaboard Elec.	5100
AR	Passenger Call Light (Jewelled)	Marco Industr. Co.	VM322-5
1	Auto Transformer, Remote Con- trol Gen. Lts.	Superior Elec.	116-1060
AR	Auto Transformer Variable Prl. Lts.	Superior Elec.	5-1043, 44, 53
1	Impact Switch	Micro Switch	2 SA 1
3	Relay, Gen. Lts.	Hartman	CR-8
4	Lavatory Valance Light	Luminator Inc.	
2	Lavatory Vertical Mirror Light	Luminator Inc.	
2	Lavatory Mirror Light	Luminator Inc.	L-14483
4	Exit Light		
4	Threshold Light	Luminator Inc.	
4	Entrance Light	Luminator Inc.	
8	Buffet Light	Luminator Inc.	
1	Coat Compartment Light	Luminator Inc.	
1	Coat Compartment Light (Fluor.)	Luminator Inc.	
1	Coat Compartment Light (Incand.)	Luminator Inc.	
6	Light, Emergency Kit, Electra Type	Grimes	40100B-12

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APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

ELECTRONIC EQUIPMENT

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>
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VHF NAVIGATION SYSTEM

1	Antenna	Convair	30-35505
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RADIO COMPASS (ADF) SYSTEM

2	Antenna Sense (Fairing)	Convair	22-30102
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MARKER BEACON

1	Antenna (Semi-Flush)	Collins	37X-2
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INSTRUMENT LANDING SYSTEM (ILS)

1	Antenna (ILS)	Collins	37P-4
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VHF COMMUNICATION

1	Antenna (Fairing)	Convair	22-30514
1	Antenna (Blade)	Convair	22-31006

HF COMMUNICATION (Deleted)



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CONVAIR FURNISHED - CONVAIR INSTALLED

ELECTRONIC EQUIPMENT

	<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>
		<u>DISTANCE MEASURING EQUIPMENT TACAN</u>		
C.O.1 5/12	2	Antenna	Electronic	LB-147
		<u>ATC TRANSPONDER BEACON</u>		
	1	Antenna	Electronic	LB-147
		<u>P.A. SYSTEM</u>		
C.O.1 4/15	AR	Speaker	Jensen	P6V
		<u>CONTROL PANELS (Electronic)</u>		
5/12	1	Public Address Panel (Crew)	Gables	G-976
	1	Public Address Panel (Aft Stewardess)	Gables	G-977
	1	Public Address Panel (Fwd Stewardess)	Gables	G-978

APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

HYDRAULIC AND PNEUMATIC EQUIPMENT

<u>Quan Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec. Number</u>
<u>HYDRAULIC</u>			
6	Motor-Pump, Fuel Jettison	Vickers	MF-3906-25
2	Motor-Flap	Vickers	MF24-3907-25ZD
1	Coupling-Self Sealing, Nose Wheel Brakes	Aeroquip	330007-6
1	Valve-Selector, Flaps	Bertea	
4	Valve-Accumulator Filler	ARO Equip. Co.	14199-1
2	Valve-Servo, Spoiler, Inboard	Bertea	35000-303
1	Damper-Gust & Control Stop, Rudder	Drescher	60059-1
2	Damper-Gust & Control Stop, Elevator	Drescher	60058-1
2	Damper-Gust & Control Stop, Aileron	Drescher	60070-1
1	Valve-Door Open Emergency	Kidde	891507
1	Valve-Selector, MLG	Bertea	50700-5001
2	Filter-High Pressure (Aux. Pump)	A/C Porous Media	
2	Valve-Relief, Low Pressure	Parker	1112-598799
2	Valve-Relief, High Pressure	PneuDraulics	1202
2	Accumulator-Pressure	Redco	8414-002
2	Valve-Temperature Control	Schroeder	C-166-01
1	Reservoir	Airite	6312-3
2	Boost Pump and Hydraulic Motor	Vickers	219932
1	Transmitter-Fluid Level		
1	Transmitter-Fluid Level		
6	Valve-Shutoff, Fuel Jettison Pump	Ronson	2U-2019
2	Valve-Shutoff, Fuel Boost Pump	Ronson	2U-2019-51
4	Valve-Shutoff, Flap & Slat	Parker	1374-598207

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APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

HYDRAULIC AND PNEUMATIC EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
<u>HYDRAULIC</u>			
2	Valve-Metering MLG Brakes	Weston	16640-1
1	Valve-Brake Metering	Weston	16650
1	Valve-Shutoff, Emergency Brakes		
1	Pump-Aux. Electric	N.Y. Air Brake	165W01008-2
3	Transmitter-High Pressure	U.S. Gauge	ST-107J
2	Transmitter-Temperature	Lewis	56B17J
1	Filter-Reservoir Fill	Purolator	62289
2	Pressure Switch-Pump Supply	Hyd. Research	93000
1	Cylinder-NLG Door Latch	Ronson	2U-2024
4	Gage-Accumulator, Pressure	Rochester	6901-714
2	Valve-Servo, Spoiler Outboard	Bertea	40600-303
2	Valve-Priority, MLG Cylinder	Drescher	52015-1
1	Valve-Priority, NLG Cylinder	Drescher	52015-1
1	Valve-Relief, NLG	PneuDrualics	1015-5
2	Damper-Flutter, Rudder	Clemco	101228
4	Pressure Switch	Hydra-Electric	90018-1
8	Valve-Shuttle	PneuDrualics	5009
1	Cylinder-Emergency Air Brake		
2	Cylinder-Down Lock Release, MLG	Cleve. Pneu.	9991C-200
2	Cylinder-Uplatch MLG	Cleve. Pneu.	9991C-300
1	Valve-Shutoff, NLG Brakes		
4	Valve-Skid Control, MLG		
1	Valve-Skid Control, NLG		
1	Nose Wheel Steering Unit	National Waterlift	1278
8	Flow Limiter-Brake Adjuster	Bendix	OXC-279-2
1	Cylinder-NLG	A.O. Smith	8-2100
1	Valve-Selector, NLG	Peacock	102120
2	Valve-Sequence, MLG Door	Weston	18680
2	Valve-Sequence, MLG		



APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

HYDRAULIC AND PNEUMATIC EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. No.
<u>HYDRAULIC</u>			
4	Cylinder-MLG Door	Peacock	
1	Accumulator-Brakes		
1	Fitting-Accumulator Charge	Parker	
2	Cylinder-MLG	National Water- lift	L-155610
4	Cylinder-MLG Door Uplatch	O & M Machine Co.	11550
2	Valve-Sequence, MLG Door Uplatch	PneuDrualics	9119
1	Valve-Shutoff, Emergency Stabilizer	Parker	1374-598487
1	Valve-Stabilizer Trim Control Servo	Bertea	48000-5001
1	Motor-Stabilizer Trim Drive	Vickers	MF020B006A
1	Valve-Selector, Slat		
2	Damper-Flutter, Elevator In- board	Clemco	
2	Damper-Flutter, Elevator Out- board		
4	Filter-High Pressure	Clemco A/C Porous Media	AC-2990-12
4	Filter-Low Pressure	Bendix	1726910
4	Filter-Case Drain	Bendix	1726954
4	Cylinder-Spoiler, Inboard	Thompson	K42281
8	Cylinder-Spoiler, Outboard	Thompson	K42280
1	Hydraulic Stop-Rudder	A.O. Smith	8-2400
1	Valve-Rudder Control	Bertea	47300-5001
1	Cylinder Rudder, Boost	A.O. Smith	8-2200
1	Reservoir-System #1	Airite	6311-5
1	Valve-Sequence, NLG Door Latch	Vinson	A-90117
4	Coupling-Self Sealing, Pressure	Eastern	11192-4C/ 11193-4C



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CONVAIR FURNISHED - CONVAIR INSTALLED

HYDRAULIC AND PNEUMATIC EQUIPMENT

<u>Quan Reqd</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec. Number</u>
4	Coupling-Self Sealing, Pump Supply	Eastern	21452-4C 21453-4C
4	Coupling-Self Sealing, Case Drain	Eastern	21462-4C 21463-4C
4	Valve-Firewall Shutoff		
1	Coupling Half-Grd. Reservoir Remote Fill	Aeroquip	305503-S11-6D
2	Coupling Half-Grd. Test, Re- turn	Aeroquip	307012-S11-1D
2	Coupling Half-Grd. Test, Pres- sure	Aeroquip	305503-S11-10D
2	Motor-Slat	Vickers	MP24-3907-30
2	Motor-Pump, Fuel Boost	Vickers	219932
4	Pump, Main System (Variable Displacement - Type)	Vickers	AS-61694-L-2

APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
2	Blower, Condenser, Electric	Ham. Standard	522831
4	Bleed Air Press. Reg. Shut- off and Check	AiResearch	108916-400
6	Anti-Ice Press. Reg. and Shutoff	AiResearch	108594-130-4
2	Emergency Cab. Air Valve	AiResearch	106522-1
2	Anti-Ice Wing Iso. Valve	AiResearch	105836-1
1	Rain Removal Shutoff	AiResearch	105832-1
4	Eng. Duct Lip Anti-Ice Press. Reg. and Shutoff	AiResearch	108594-130-4
1	Cab Outflow Valve Control	AiResearch	102290-2
2	Cab Outflow Valve	AiResearch	103182-4
1	Filter	AiResearch	PS 135157-4
1	Fan, Elect. Cooling	Dynamic Air	M5921A-6A
1	Sensor Elect. Cooling Airflow	AiResearch	133026-1
1	Temperature Indicator	Seaboard	30-06423-1
1	Alarm Control Box	Seaboard	30-06429-1
1	Control Box, Windshield (Ctr)	Mag. Controls Co.	30-06429-19
1	Control Box, Windshield (Main)	Mag. Controls	30-06429-21
1	Control Box, Windshield (Sliding)	Mag. Controls Co.	30-06429-23
1	Control Box, Windshield (Aft)	Mag. Controls	
1	Control Box, Windshield Rain Clearing (Overheat)	Fenwal	30-06504-3
AR	Relay, 10A, 4 Pole, 28VDC	Leach	9224-4036
AR	Relay, 10A, 2 Pole, 115VAC	Leach	9227-4303
AR	Relay, 10A, 2 Pole, 28VDC	Leach	9227-4309
2	Heater, Electric (Dual)	Western Gear	59-381
3	Valve, Cond. Air Emerg. Shutoff	Ham. Standard	548328

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CONVAIR FURNISHED - CONVAIR INSTALLED

PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
1	Valve, Eng. Start Check	Bobrick	M914-1
1	Switch, Bleed Air Overpress	Meletron	1430-10-299
2	Valve, Cabin Press. Gr. Test	Kohler	K-1523-6D-2
1	Switch, Cond. Cooling Air Mod.	Meletron	M410B3A-7
12	Sensor, Bleed Air Duct Spec. Temperature	Fenwal	
2	Valve, Electrical Compt. Check	Bobrick	M985
2	Sensor, Evaporator Discharge Temperature		99-05001-003
2	Transformer, Current Limiting	Ham. Standard	539924
1	Valve, Electronic Cooling Shutoff	Crocker Mfg.	40D690
1	Control, Cabin Temperature		
4	Sensor, Cabin Temp. Control		
1	Power Supply, Cabin Temp. Control		
1	Power Supply, Cabin Temp. Control		
1	Sensor, Cabin Air Temp. Indicator		MS 28034-3

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CONVAIR FURNISHED - CONVAIR INSTALLED

PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number
/15 /12	2 Primary Heat Exchanger	Ham. Standard	545814
	2 Detector, Ice Warning	Goodyear Can. Appl. Res. Ltd.	3065-1802 C.A.R.L. Type T260-MK12A
4	Switch, Engine Anti-Icing Pressure	Hydra-Electric	40137
2	Supercharger Pack	Ham. Standard	555150
2	Temperature Control	Ham. Standard	522828
4	Temperature Sensor	Ham. Standard	522835
2	Freon Pack (EL)	Ham. Standard	550820
2	Temperature Select	Ham. Standard	522839
2	Sequencing Device (EL)	Ham. Standard	545285
2	130 Degrees Air Temperature Limiter	Ham. Standard	549254
2	S/C Shutoff	Ham. Standard	535460
6	6-Inch Check	Ham. Standard	555000
3	6-Inch Shutoff	Ham. Standard	548328
1	Recirculating Fan	Ham. Standard	545751
1	Recirculating Fan Duct	Ham. Standard	
1	Recirculating Valve	Ham. Standard	550880
2	Cabin Ram Valve	Ham. Standard	548330
2	HX Modulating Valve	Ham. Standard	548331
2	Cond. Air Mod.	Ham. Standard	548333
2	Cond. Air Ground Shutoff	Ham. Standard	548332
2	Flow Sensor	Ham. Standard	523826
1	Electric Duct Heater	Janco	8031
1	Transmitter, Bleed Air Pressure	U.S. Gauge	ST104M



APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

LANDING GEAR EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. No.	Total Weight (lb)
0.1	8 Wheel, Main*	Bendix	152051	722.0
15	8 Brake, Main Wheel*	Bendix	152052	1,502.0
12	8 Tires, Main Wheel (41 x 15-18, Tread Depth .38 200 mi/hr)	Type VIII HP22PR Firestone ø **Goodrich ø Goodyear ø U.S. Rubber ø Bendix	131.75 124.0 127.0 131.2 152061	1054.0 992 1016.0 1049.6 107.0
23B	2 Wheel, Nose*	Type VII HP16PR Firestone ø **Goodrich ø Goodyear ø U.S. Rubber ø Bendix	43.1 42.0 43.0 42.33 152062	86.2 84.0 86.0 84.66 168.0
20	2 Tires, Nose Wheel (29 x 7.7, Tread depth .32, 200 mi/hr)			
	2 Brake, Nose Wheel*			
	2 Main Shock Strut Instl.	Cleveland		
	1 Nose Shock Strut Instl.	Cleveland		
	1 Anti-Skid Detector NLG	Hydro Aire		
	8 Anti-Skid Detector MLG	Hydro Aire		
	1 Nose Wheel Steering	Cleveland		
	1 Box, MLG, Anti-Skid Control	Hydro Aire	H0-273	
	1 Box, NLG, Anti-Skid Control	Hydro Aire	H0-263	
	1 Timer, Warn Horn Cycle	Haydon Co.	31379	
AR	Relay, Miscellaneous, LG	Leach	9224-4036	
	4 Switch	Electro Snap	30-06406-1 402-1 405-1 22-06477-3	

\*All items not identified by a single asterisk (\*) shall be subject to the weight adjustment specified in 3.1.2.1.

\*\*Manufacturer's Weight Empty guarantee includes the weight of the lightest tires. The manufacturer's weight empty guarantee will be adjusted for each airplane by the amount of variance from the lightest tire weights shown.

ø Twenty-five percent of total tires for main and nose wheels shall be provided by each of the four vendors indicated. However, each airplane shall be equipped only with a specific vendor furnished set of tires.



APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

CONTROL SYSTEMS

Quan Reqd	Description	Manufacturer	Part or Spec. Number
6	Walking Pressure Seal	SeaLine	SL-1012-1
1	Air Intake	C.A.R.L.	101-09350
1	Cylinder	Peacock	102154
1	Flap Drive Assembly	Western Gear	1288R18
1	Flap Control Lever	Hansen-Lynn	5L4257
2	Rod End Swivel Bearing	Industrial Tectonics	1725D
1	Aileron Droop Actuation	Lear	434CK
1	Pilot's Control Wheel	Adams-Rite	50075-3
1	Pilot's Control Wheel	Adams-Rite	50075-4
1	Position Transmitter (Horizontal Stabilizer)	U.S. Gauge	ST-12G
1	Horizontal Stabilizer Emergency Drive Motor	Lear	30A-22AP-1
1	Irreversible Quadrant, Speed Brake	Reid Metals	22-04413-3
1	Slat Drive Assembly	Talley	599T100
1	Landing Gear Control Lever	Langley	22-04405-7
1	Parking Brake Control Lever	Teleflex	16973
8	Micro-Adjust Assembly	Teleflex	22-02436-77
4	Engine Torque Box Assembly	Teleflex	30-02490-1
4	Pylon Torque Box	Teleflex	30-02490-3
8	Quick Disconnect Assembly	Teleflex	30-02490-73
1	Cable Tension Regulator Assembly	Pacific Scientific	0506103-0



APPENDIX I-C

CONVAIR FURNISHED - CONVAIR INSTALLED

FURNISHINGS

	Quan Reqd	Description	Manufacturer	Part or Spec. No.	Total Weight (lb)
0.1	2	Seats, Pilots' (Including Fabric, Belt, Harness & Reel	Aircraft Mechanics		
12	1	Seat, Flight Engineer's (Including Fabric, Belt, Harness & Reel)	Aircraft Mechanics		
18B	1	Seat, Observers, Folding (Including Fabric, Belt and Harness)	Convair		
15	1	Seat, Third Pilot (Including Fabric, Belt, Harness & Reel)	Aircraft Mechanics		
38A	2	Seats, Cabin Attendants' Folding-Type, (Including Safety Belts)	Convair		
1A,	1	Double Seat, Cabin Attend- ants' Folding-Type (Includ- ing Safety Belt)	Convair		
1A	1	Double Seat, Aft Facing Special, L.H. Forward (In- cluding Safety Belt)	National Seating Co.		
1/59,	45	Double Seats, 52 inch width, with Hydraulic Recline Locks (Including Foot-Rests for 41 Double Seats)	National Seating Co.		
1/29	90	Belts, Passenger Safety (with Energy Absorption Devices)	Maxihoff		
31A	82	Trays, Integral Folding (For 52 inch Seat)	National Seating Co.		
	10	Trays, Plug-in Type Food	National Seating		
	5	Ash Trays, Crew	Weber Aircraft	210185	
	4	Panels, Food Tray Closing	Convair		
	1	Rack, Magazine	Convair		
	1	Table, Folding Map (Pilot and Copilot)	Convair		

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CONVAIR FURNISHED - CONVAIR INSTALLED

FURNISHINGS

Quan Reqd	Description	Manufacturer	Part or Spec. No.	Total Weight (lb)
1	Table, Third Pilot	Convair		
1	Divider, Movable Coat (L.H.) (Including Stowage Box)	Convair		
1	Divider, Movable (R.H.) (Including Stowage Box and Illuminated "No Smoking" "Fasten Seat Belt" signs)	Convair		
1	Coat Hanger, Crew	Hartwell	H-163-1	
6	*Bins, Preloaded Baggage			480.0
1	Chime (Secal)	Electro/ Switch	3001-4	
1	Chime, Crew Call	Electro/ Switch	3001-3	
4	Switch, Fire Control	Avionics	E-860-1,3, 5, & -7	
1	Pilots' Door Lock and Key	Adams Rite	2028-4XT4619	
1	*Gloves, Asbestos	David Gloves	2214 FL	1.0
4	*Ropes, Escape	Convair		17.0
1	*Axe, Emergency	Air Asso- ciated	6701	3.0
4	*Escape, Chute (Inflatable)			152.0
1	Horn, Landing Gear & Flap Warning	Faraday	430-M1	
4	Toilet, Flushing Type Disposal Tank & Enclosures	Wickland	2433 2434 2439 2440	
2	Bell, Warning (MNE) (Fire)	Edwards & Co.	168-2C	

\*Fixed useful load item



APPENDIX I-C

FURNISHINGS UNIT WEIGHTS

FURNISHINGS

The following weights are those allotted for the specific items noted where applicable. Any initial modifications for a specific interior or changes requested by the Buyer that alter these weights will affect the airplane weight empty, weight guarantee and be subject to negotiation.

Interior Trim:\*\*

Cabin, Buffet, and Entry Way Floor Covering	58.0 oz/sq yd
Cabin Overhead Trim	10.0 oz/sq yd
Hatrack Underside	10.0 oz/sq yd
Lavatory, Buffet, and Entry Way Overhead Trim	10.0 oz/sq yd
Fabric Trim on Partition	16.0 oz/sq yd
Coat Closet Curtain	7.5 oz/sq yd
Seat Upholstering	11.5 oz/sq yd
Seat Trim - Arm Rest	21.0 oz/sq yd
96 Window Antiglare Panels	115.0 lb
Belly Cargo Liner - Rubberized Ceiling	
Sides and Compartment End Bulkheads	32.0 oz/sq yd
Belly Cargo Liner - 045 Al. Floor	0.65 oz/sq ft
Exterior Paint	20.0 lb
Numbers and Identification	
Pilot Compartment, Coat Compartment and Lavatory Floor Covering	32.5 oz/sq yd

\*\*NOTE: Buyer shall make selection of above (or similar) materials, fabrics, finishes, etc., as an appendix to the Convair Interior Finish Specification (Report 30-00004) and negotiate same with Convair seasonably, to avoid delivery delay.

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APPENDIX I-G

CONVAIR FURNISHED - CONVAIR INSTALLED

OXYGEN EQUIPMENT

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
0.1 18B 39A 12 61 60A	4 *Cylinder, High Pressure Oxygen (107 cu ft, with gages)	Zep Aero	ZC268-111	187.0
	1 *Bottle, Portable Oxygen (310 Liter)	Scott	5600-1C1A- F20B	14.0
	4 *Bottle, Portable Oxygen (310 Liter)	Scott	5500-C1A- BF20B	60.0
	5 Regulator (Crew Diluter- Demand Type)	Scott	10400-13	
	1 Valve Line, Oxygen	Robbins Aviation	OV601-1P	
AR	Mask, Passenger and Cabin Attendants' Oxygen	ARO Equipt.	C7040-1	
	1 Pressure Reducer, Oxygen	Alar	5758	
	2 Valve, Oxygen, Auto-opening (Continuous flow regulator with pressure reducer)	Alar	5870-100	
AR	Valve, Rotary Oxygen	Scott	8775	
AR	Latch, Pressure Oxygen	Scott	8790-1	
AR	Latch, Pressure Oxygen	Scott	8790-2	
1	Valve, Bleed Oxygen	Scott	21236	
AR	Valve, Rotary Oxygen (Double Flow)	Scott	8775-1	

\*Fixed Useful Load Item



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**APPENDIX I-C**

**CONVAIR FURNISHED - CONVAIR INSTALLED**

Quan Reqd	Description	Manufacturer	Part or Spec. Number	Total Weight (lb)
<b><u>FIRE EXTINGUISHING EQUIPMENT</u></b>				
1	*Bottle, Portable CO <sub>2</sub> (5 lb) Type 5TB-1	Walter Kidde	870906	15.5
3	*Bottle, Portable Water	Walter Kidde	890275	19.5
4	Bottle, Fire Extinguisher (6-1/2 lb)	Walter Kidde	891490	
4	Check Tee, Fire Extinguisher	Walter Kidde	872601	
AR	Flashers, Overheat	Access.Prod.		
1	Box, Fire and Overheat Warn Control	United Con- trol	A579	
AR	Relays	Leach	9224-4036	

**FIRE DETECTION EQUIPMENT**

8	Control Unit	Fenwal		
AR	Pin Plug	Fenwal		
AR	Socket Receptacle	Fenwal		
AR	Clamp	CAM-LOC	7C1-4A	
AR	Grommet	Fenwal	35450-0	
AR	Conn. Joint Plate	Fenwal	124279	
AR	Conn. Joint Bracket	Fenwal	124280	
AR	Connector Nut	Fenwal	135930	
AR	Sensing Element	Fenwal		

\*Fixed Useful Load Item

APPENDIX I-D

The following consists of items which have not been developed and which may be subject to varying degrees of design control by the Customer. The guaranteed weight empty shall be adjusted for changes in the weight of these items.

- |  |          |
|--|----------|
| 1. Mechanism for cargo bins                            | 240 lb.  |
| 2. Exterior markings (identification and AAL striping) | 20 lb.   |
| 3. Flight data recording system                        | 80 lb.   |
| 4. Thrust reversers                                    | 1400 lb. |



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,057 DTD \_\_\_\_\_

CHANGE NO: 19F

MODEL: 30-5 (Convair "990")

TITLE: **Specification Administrative Change (Manufacturer's Name and/or Part Number)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To bring Appendix Section of Specification up-to-date.**

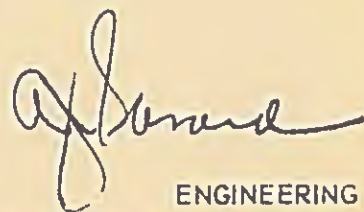
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

American Airlines Inc.  
Change No. 19F

Page 1 of 11

Title: Specification Administrative Change (Manufacturer's Name and/or Part Number)

Origin: Convair initiated

Reason for Change: To bring Appendix Section of Specification up-to-date.

Description of Change:

Page A-1, APPENDIX I-A, "FURNISHINGS"

Change the following:

From: 2 #Visor, Sun (Pilot Compartment) 2.0

To: 2 #Visor, Sun (Pilot Compartment) Boeing 69-2524-3 2.0

Page A-7, APPENDIX I-C, under "POWER PLANT EQUIPMENT"

Change the following:

From: 4 Transmitters, Fuel Flow Gen. 8TJ59GAM-1  
Electric

To: 4 Transmitters, Fuel Flow Gen. 8TJ59QAX-3  
Electric

From: 4 Starter, Air Turbine AiResearch 351810

To: 4 Starter, Air Turbine AiResearch 359004-10

Page A-16, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT

Change the following under "ENGINE INSTRUMENTS - OIL SYSTEM"

From: 4 Transmitter, Oil Convair 30-2468  
Quantity

To: 4 Transmitter, Oil Simmonds 391080-02550  
Quantity

Page A-17, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT

Change the following under "HYDRAULIC AND PNEUMATIC"



<u>From:</u>	2	Indicator, Hydraulic Pressure	U. S. Gauge	Type SRL-07J
<u>To:</u>	*2	Indicator, Hydraulic Pressure	U. S. Gauge	Type SR-07A
	**2	Indicator Hydraulic Pressure	U. S. Gauge	Type SR-07B

Add the following to the bottom of Page A-17:

"\* Applies to airplanes 30-5-1 thru 30-5-5.

\*\* Applies to airplanes 30-5-6 thru 30-5-25"

Page A-18, APPENDIX I-C, ELECTRICAL EQUIPMENT

Change the following under "ELECTRICAL POWER EQUIPMENT"

<u>From:</u>	4	Transformer - Rectifier	Chatham	28VS50
<u>To:</u>	5	Transformer - Rectifier	Gen. Electric	6RW176YN1
<u>Delete:</u>	1	Transformer - Rectifier Approx. 25V, 28 Amp.	Elec. Spl. Co.	
<u>From:</u>	1	Power Pack, Static In- verter (900 Volt-Amp. Approx.)	Leland Elec.	
<u>To:</u>	1	Power Pack, Static In- verter (750 Volt-Amp. Approx.)	Gen. Electric	3S2060DV101A1
<u>From:</u>	4	Contactor, Generator Line and Bus Tie	Gen. Electric	729C572
<u>To:</u>	4	Contactor, Generator Line and Bus Tie	Hartman	B-124A
<u>From:</u>	2	Contactor, External Power	Gen. Electric	729C574
<u>To:</u>	2	Contactor, External Power	Hartman	B-125C
<u>From:</u>	2	Relay, Phase Sequence	Gen. Electric	729C573
<u>To:</u>	2	Relay, Phase Sequence	Hartman	AVR-869
<u>From:</u>	4	Load Controller, Constant Speed Drive	Gen. Electric	7TAR10A01

To: 4 Load Controller, Con- Minn.  
stant Speed Drive Honeywell 31357E

## Page A-19, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Revise the below item under "Description" as follows:

From: "2 Transformer, 1 Phase,  
115 to 26 Volts, .100 KVA Osborne 6781

To: "2 Transformer, 1 Phase,  
115 to 26 Volts, .200 KVA Osborne 8762

## Page A-20, APPENDIX I-C, ELECTRICAL EQUIPMENT

Add the following under "EXTERIOR LIGHTS"

2 Taxi Light Grimes Mfg. 30950-4551

## Page A-22, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Change the following under "INTERIOR LIGHTS"

From: "118 Passenger Reading Light Airite"

To: "118 Passenger Reading Light Grimes 34150"

## Page A-25, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"

From: "2 Motor, Flap Vickers MF24-3907-25ZD"

To: 2 Motor, Flap Vickers M36-3907-25ZD"

From: 2 Damper - Gust and Con-  
trol Stop Aileron Drescher 60070-1

To: 2 Damper - Gust and Con-  
trol Stop Aileron Drescher 60070-3

## Page A-26, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"



From: 2 Valve - Sequence, MLG

To: 2 Valve - Sequence, MLG

Vinson

A90127

## Page A-27, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT

Change the following under "HYDRAULIC"

From: 2 Cylinder - MLG

National  
Waterlift

L-155610

To: 2 Cylinder - MLG

National  
Waterlift

1556

From: 4 Cylinder - Spoiler,  
Inboard

Thompson

K42281

To: 4 Cylinder - Spoiler,  
Inboard

CVAC

30-84020-1

From: 1 Reservoir - System  
No. 1

Airite

6311-5

To: 1 Reservoir - System  
No. 1

Airite

6311-9

Page A-29, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDI-  
TIONING EQUIPMENT

Change the following:

From: 4 Bleed Air Pressure Reg.  
Shutoff and Check

AiResearch

108916-400

To: 4 Bleed Air Pressure Reg.  
Shutoff and Check

AiResearch

108916-1

From: 1 Cab Outflow Valve Con-  
trol

AiResearch

102290-2

To: 1 Cab Outflow Valve Con-  
trol

AiResearch

102290-3

<u>From:</u>	1	Control Box, Windshield (Ctr)	Mag. Controls	30-06429-19
	1	Control Box, Windshield (Main)	Mag. Controls	30-06429-21
	1	Control Box, Windshield (Sliding)	Mag. Controls	30-06429-23
	1	Control Box, Windshield (Aft)	Mag. Controls	
<u>To:</u>	1	Control Box, Windshield (Ctr)	Mag. Controls	22-06429-33
	2	Control Box, Windshield (Main)	Mag. Controls	22-06429-35
	1	Control Box, Windshield (Sliding)	Mag. Controls	22-06429-31
	1	Control Box, Windshield (Aft)	Mag. Controls	22-06429-37
<u>Delete:</u>	2	Heater, Electric (Dual)	Western Gear	59-381

Page A-30, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING  
EQUIPMENT:

Change the following:

<u>From:</u>	1	Control, Cabin Temperature		
	4	Sensor, Cabin Temperature Control		
	1	Power Supply, Cabin Temp. Control		
	1	Power Supply, Pilot Comp. Temp. Control		
<u>To:</u>	1	Control Cabin Temperature	Mag. Controls	CA4A-1
	4	Sensor Cabin Temperature	Mag. Controls	SE8A-1
	1	Power Supply Cabin Temperature	Mag. Controls	PS59A-1
	1	Power Supply Cabin Temperature (Ground Heating)	Mag. Controls	PS60A-1
	1	Modulating Amplifier Cabin Temperature (Ground Heating)	Mag. Controls	MA11A-1 (applicable to 30-5)



## Page A-31, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT

Change the following:

<u>From:</u>	2	Supercharger Pack	Ham. Standard	555150
<u>To:</u>	2	Supercharger Pack	Ham. Standard	550150
<u>From:</u>	2	Temperature Control	Ham. Standard	522828
<u>To:</u>	2	Temperature Control Cabin and Flight Deck	Ham. Standard	555653
<u>From:</u>	2	Sequencing Device (KL)	Ham. Standard	545285
<u>To:</u>	2	Sequencing Device (KL)	Ham. Standard	562323
<u>From:</u>	2	S/C Shutoff	Ham. Standard	535460
<u>To:</u>	2	S/C Shutoff Valve	Ham. Standard	535460
<u>From:</u>	6	6-Inch Check	Ham. Standard	555000
<u>To:</u>	6	6-Inch Check Valve	Ham. Standard	555000
<u>From:</u>	3	6-Inch Shutoff	Ham. Standard	548328
<u>To:</u>	3	6-Inch Shutoff Valve	Ham. Standard	548328
<u>From:</u>	1	Recirculating Fan	Ham. Standard	
<u>To:</u>	1	Recirculating Fan Duct	Ham. Standard	553978
<u>From:</u>	2	Cond. Air Mod.	Ham. Standard	548333
<u>To:</u>	2	Cond. Air Mod. Valve	Ham. Standard	548333
<u>From:</u>	2	Cond. Air Ground Shutoff	Ham. Standard	548332
<u>To:</u>	2	Cond. Air Ground Shutoff Valve	Ham. Standard	548332

## Page A-32, APPENDIX I-C, LANDING GEAR EQUIPMENT

Change the following:

<u>From:</u>	1	Nose Wheel Steering	Cleveland	
<u>To:</u>	1	Nose Wheel Steering	Cleveland	1278

## Page A-33, APPENDIX I-C, CONTROL SYSTEMS

Change the following:

<u>From:</u>	"1	Pilot's Control Wheel	Adams-Rite	50075-3
	1	Pilot's Control Wheel	Adams-Rite	40075-4"
<u>To:</u>	"1	Pilot's Control Wheel	Adams-Rite	50075-17
	1	Pilot's Control Wheel	Adams-Rite	50075-18"
<u>From:</u>	1	Horizontal Stabilizer Emergency Drive Motor	Lear	30A-22AP-1
<u>To:</u>	1	Horizontal Stabilizer Emergency Drive Motor	Lear	301535
<u>From:</u>	1	Irreversible Quadrant, Speed Brake	Reid Metals	22-04413-3
<u>To:</u>	1	Irreversible Quadrant, Speed Brake	Reid Metals	22-04413-7
<u>From:</u>	1	Landing Gear Control Lever	Langley	22-04405-7
<u>To:</u>	1	Landing Gear Control Lever	Langley	22-04405-11

## Page A-38, APPENDIX I-C, FIRE EXTINGUISHING EQUIPMENT

Change the following:

<u>From:</u>	4	Check Tee, Fire Extinguisher	Walter Kidde	872601
<u>To:</u>	8	Check Tee, Fire Extinguisher	Walter Kidde	872601
<u>From:</u>	AR	Flashers, Overheat	Access.Prod	
<u>To:</u>	AR	Flashers, Overheat	Radar Relay Inc.	R1318



The following shall not appear in the specification language:

In compliance with American Airlines request to supply justification for each Appendix item change, the following is submitted as applies to CCP No. 19F:

Page A-1, APPENDIX I-A FURNISHINGS:

Sun Visor - Addition of now known vendor and part number

Page A-7, APPENDIX I-C

The fuel flow transmitters were changed from 8TJ59GAM-1 to 8TJ59GAX-3 due to a drawing error by General Electric on the original part which had the transmitter and brackets designed with the fuel going through the transmitter in the wrong direction. The new number corrected the drawing and direction of fuel flow.

Also on Page A-7, Appendix I-C, the AiResearch air turbine starter was changed from 351810 to 359004-10. This last AiResearch number reflects the incorporation of the beefed-up scrolls which were cracking in service.

Page A-16, APPENDIX I-C:

The identification number of the oil quantity transmitter was changed from Convair 30-2468 to Simmonds No. 391080-02550 to identify equipment by vendor's part number rather than by Convair specification control numbers.

Page A-17, APPENDIX I-C:

The hydraulic pressure indicator change from SRL-07J to SR-07A is a specification correction and applies to Airplanes 30-5-1 thru 30-5-5. The SR-07B indicator, which has range and limit marks on the dial, is used on Airplanes 30-5-6 thru 30-5-25.

Page A-18, APPENDIX I-C:

The transformer rectifier change from Chatham to General Electric provides unit not requiring internal cooling blower. One piece was added to supply power for increased ground D.C. power requirements. This replaces the 28-amp. Electronic Specialty item.

The static inverter change from Leland to General Electric is because this was a short lead time development item and the Leland item was not developed in time to fulfill product requirements.



The generator line and bus tie contactor change from General Electric to Hartman is because Hartman was second source of supply and the original manufacturer of that item. This should result in cost reduction in future Customer parts procurement

The external power contactors, and the phase sequence relay change from General Electric to Hartman is for the same reason as stated in above.

The constant speed drive load controller change from General Electric to Minneapolis-Honeywell is for same reason as stated above.

Page A-19, APPENDIX I-C:

The transformer, 115V - 26V, 1 phase .100 KVA, change to a .200 KVA transformer is because of increased 26-volt instrument power requirements thereby necessitating a change to a greater capacity transformer.

Page A-20, APPENDIX I-C:

The taxi lights are added under "Exterior Lights" for consistency with other exterior lights in that category listed thereunder.

Page A-22, APPENDIX I-C:

The change from "Airite" to "Grimes" passenger reading is due to previous unsatisfactory service obtained from the "Airite" light. This change is considered a product improvement.

Page A-25, APPENDIX I-C:

The change to flap motor part number corrects an erroneous part number.

The change to gust and control stop aileron damper part number is because that during early design P/N 60070-1 was ordered for Model 30 airplanes (used on Model 22 airplanes) to initiate hardware fabrication. The -1 and -3 use the same bodies, pistons and rods. When precise damping velocities were determined, the P/N was changed due to difference in orifice size.

Page A-26, APPENDIX I-C:

The change to sequence valve merely adds the vendor and part number after being so determined.



Page A-27, APPENDIX I-C:

The change to MLG cylinder corrects part number.

The change to inboard spoiler cylinder was required to improve lateral control.

The reservoir system change was due to revision of sight gage placard to indicate corrected fluid levels.

Page A-29, APPENDIX I-C:

The change to bleed air pressure regulator shutoff and check reflects an alteration required for installation reasons discovered on first installation. This required rotating the indicator switch cover 180 degrees in order to permit installation of the indicator switch electrical harness.

The change to cabin outflow valve control reflects a change in pressure differential setting to 8.3 psi to permit operation to 41,000 feet.

The change to windshield control box part numbers includes a correction of typographical error and the addition of a part number. The new parts reflect a change to the original 22-06429 parts which adds current limiters to prevent windshield failures as determined by quality testing.

The deletion of Western Gear heater 59-381 is because of duplication. The part is listed on Page A-31.

Page A-30, APPENDIX I-C:

The changes to the cabin temperature control system components adds the now available vendor and vendor part numbers.

Page A-31 - APPENDIX I-C:

The supercharger package change reflects vendor change to incorporate improved turbine rotors as a result of service difficulties on earlier versions.

The temperature control change reflects an internal change to the temperature controllers by vendor as a result of service difficulties encountered on the Model 22 airplane with that controller.



The sequencing device change reflects a change by vendor as a result of slippage of the potentiometer which caused incorrect signals to the air conditioning equipment. The change involved more positive attachment of the potentiometer to the drive shaft.

The remaining changes on Page A-31 are nomenclature changes for clarification and addition of missing numbers which are self explanatory.

Page A-32, APPENDIX I-C:

The change to nose wheel steering adds a missing part number which has become available.

Page A-33, APPENDIX I-C:

The change to pilot's control wheels is due to installation of "momentary - on" thunderstorm switch in lieu of "push-on" "push-off" thunderstorm switch.

The change to horizontal stabilizer emergency drive motor is because the motor number changed from motor "type" number to an actual motor number by Lear. This is merely a paper change - no physical change to equipment.

The change to irreversible quadrant speed brake is due to removal of spring from quadrant to reduce feel force on speed brake lever.

The landing gear control lever changed from angled to straight per flight test evaluation with the end result of better lever visibility and ease of operation.

Page A-38, APPENDIX I-C:

The quantities of the check tee were changed to agree with the actual quantity used per airplane.

The change from Access. Prod. to Radar Relay Inc. for overheat flashers is because the Radar Relay item was given prior approval as conforming to Convair Spec. 22-06485-1. There is no approval record of the Access. Prod. item.



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

Revised  
DATE: 2 March 1959, 23 March 1959

CUSTOMER: American Airlines Inc.

MCL 60,022 DTD 2 March 1959

CHANGE NO.: 18B

MODEL 30-5 (Convair "600")

TITLE Third Pilot Station, Installation of

ORIGIN American Airlines Cockpit Mock-Up of 18 February 1959 and AAL/Convair Meeting of 23 March 1959

REASON FOR CHANGE: Customer request and revision to CCP No. 18A

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 150.0 lb	OPER. WT. EMPTY 397.0 lb	114,298 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Third Pilot Station, Installation of  
Origin: American Airlines Cockpit Mock-Up of 18 February 1959 and AAL/Con-  
vair Meeting of 23 March 1959

Reason for Change: Customer request and revision to CCP No. 18A.

Page 6, Paragraph 3.1.2.2 TYPICAL LOADING SUMMARY:

Change the first item under "Crew" as follows:

From: "Pilots (2) 340"

To: "Pilots (3) 510"

Page 17, Paragraph 3.7.1.3.1 FLIGHT COMPARTMENT:

Revise the paragraph to read as follows:

"The pilot's compartment shall be arranged with the pilot on the left side, the copilot on the right side and a control pedestal between. A third pilot seat shall be provided aft of the pilot. A flight engineer's station shall be provided aft of the copilot's station and an observer's seat shall be installed aft of the third pilot seat."

Page 44, Paragraph 3.14.1 INSTRUMENTS:

Revise the first sentence to read as follows:

"The pilot's flight instruments shall be installed on a removable subpanel for the pilot and copilot with engine and miscellaneous instruments arranged on a panel between the flight panels so as to be visible to the pilot and copilot from a normal seated position during daylight hours without artificial light."

Page 61, Paragraph 3.16.8.2.4 MAP READING LIGHTS:

Revise the first sentence to read as follows:

"Individual map reading red and white lights and their dimming control rheostats shall be provided; one for the pilot and one for the copilot, and one for the observer."

Page 62, Paragraph 3.16.8.2.7 UTILITY LIGHTS:

Revise the paragraph title and paragraph to read as follows:

"TABLE LIGHTS: A red and white dimmable table light shall be installed along the forward edge of the flight engineer's table. A similar light shall be installed along the outboard edge of the third pilot's table."



Page 62, Paragraph 3.16.8.2.7.1 OBSERVER'S LIGHT:

Delete the paragraph in its entirety.

Page 76, Paragraph 3.17.2.3.1 AUDIO SELECTOR:

Revise the second sentence to read as follows:

"Audio selector panels shall be provided for the third pilot and flight engineer. The observer's communication jackbox shall be connected to the third pilot's audio selector panel."

Page 81, Paragraph 3.19.1.1.2 PILOT'S, COPILOT'S AND FLIGHT ENGINEER'S SEATS:

Revise the paragraph title and the paragraph to read as follows:

"PILOT'S AND COPILOT'S SEATS: Seats shall be provided for the pilot and copilot, which shall have a minimum adjustment of five inches vertically and seven inches fore and aft. The pilot's and copilot's seats shall be capable of recline and adjustment. Pilot and copilot seats will be substantially in accordance with ARP 290. The seats shall be interchangeable between airplanes. The pilot's and copilot's seats shall be interchangeable between stations by relocating adjustment controls from left to right side of seat or vice versa and transfer of log book holder. The seat backs, cushions and arm rests shall be upholstered and covered with a material as specified by the Interior Finish Specification. The pilot's and copilot's seats shall have provisions for headrests."

Page 81, Add the following new paragraph, after Paragraph 3.19.1.1.2:

3.19.1.1.2.1. FLIGHT ENGINEER'S AND THIRD PILOT'S SEATS: Seats shall be provided for the flight engineer and third pilot. The seats shall be the swiveling-type and shall be track mounted so the occupant can position himself at his station. The seats shall be removable and interchangeable between airplanes. The flight engineer's seat shall have an armrest on one side only. The seat backs, cushions and armrests shall be upholstered and covered with a material as specified by the Interior Finish Specification. A folding table approximately 22 x 16 inches with a drawer approximately 1-1/2 by 16 by 14 inches shall be provided at the third pilot position. The outboard edge of the table shall include provisions for audio panel, oxygen regulator panel and table light control panel.



Page 81, Paragraph 3.19.1.1.3 OBSERVER'S SEAT:

Revise the paragraph to read as follows:

"A folding-type seat aft of the third pilot shall be installed for use by an observer. The seat shall be recessed into the forward fixed coat compartment. A fixed headrest shall be provided on the partition for use of the observer.

Page 82, Paragraph 3.19.1.1.6 SAFETY BELTS:

Revise the paragraph to read as follows:

"Commercial-type safety belts shall be provided on all seats. Inertia reels and shoulder harness shall also be provided for the pilot, co-pilot, flight engineer and third pilot. A shoulder harness and safety belt shall be provided for the observer."

Page 86, Paragraph 3.19.2.7.1 ASH TRAYS:

Add the following to ash tray list:

"One third pilot"

Page 87, Paragraph 3.19.2.7.6 FLIGHT KIT STOWAGE:

Revise sentence to read as follows:

"Provisions for stowage of three flight kits shall be made."

Page 87, Add the following new paragraph to the page:

"A sectional map case shall be incorporated into a readily removable guard over the oxygen bottles. The oxygen gages shall remain visible."

Page 90, Paragraph 3.19.5.1 GENERAL:

Revise the first sentence to read as follows:

"A "High Pressure Gas" oxygen system shall be installed for use of the operating crew (pilot, copilot, third pilot, flight engineer and observer), passengers, cabin attendants and in each lavatory."

Page 91, Paragraph 3.19.5.5 MASKS:

Revise the first sentence to read as follows:



10: "1 Seat, Observer, Folding (including fabric, belt and harness)"

Add the following items to the Description List:

- "1 Seat, Third Pilot (including fabric, belt and harness)  
4 Reel, Inertia"

Change the below item as follows:

<u>From:</u>	"4 Ash Trays	Weber Aircraft	210185"
<u>To:</u>	"5 Ash Trays	Weber Aircraft	210185"

Page A-26, APPENDIX I-C, OXYGEN EQUIPMENT:

Change the below items as follows:

<u>From:</u>	"3 *Cylinder, High Pressure Oxygen (107 cu ft, with gages)	Walter Kidde	890941	140.0"
<u>To:</u>	"4 *Cylinder, High Pressure Oxygen (107 cu ft, with gages)	Walter Kidde	890941	187.0"
<u>From:</u>	"4 Regulator (Crew, Diluter- Demand-Type)	Scott	10400"	
<u>To:</u>	"5 Regulator (Crew, Diluter- Demand-Type)	Scott	10400"	

The below listed illustrations will be revised to show effects of third pilot station, on Customer acceptance of this proposal:

APP. II	INTERIOR ARRANGEMENT - COACH
	INTERIOR ARRANGEMENT - MIXED SEATING
Page 3b	INTERIOR ARRANGEMENT - STANDARD
Page 45	PILOT'S AND COPILOT'S CONSOLE AND WING PANELS
Page 90a	GASEOUS OXYGEN SYSTEM

Enclosure: (A) One copy Convair Dwg. AAL seat arrangement per AAL/Convair  
Mock-Up Meeting 3-23-59

	<u>Weight</u>	<u>Effect on Balance</u>
Effect on Guaranteed Weight Empty:	✓150.0 pounds	✓42,588 inch-pounds
Effect on Fixed Useful Load:	✓247.0 pounds	✓71,710 inch-pounds
Effect on Operating Weight Empty:	✓397.0 pounds	✓114,298 inch-pounds
Effect on Performance:	None	



EXHIBIT TO AMERICAN AIRLINES CCP #18B

"Conversion from 4-man pilot's compartment to 5-man pilot's compartment. Definition = "2nd officer" herein = "3rd pilot" in Specification "Captain" contained herein "pilot" in specification.

The following represents a general description of the overall task. This description is for information only and shall not be a part of Specification Language. Create a 5-man pilot's compartment by the following:

- (a) Delete Convair existing production-type flight engineer and observer seat.
- (b) Design, tool and install a new reduced size seat having no vertical adjustment for use by the flight engineer and the new second officer position. The objective will be to make these seats interchangeable except that the flight engineer seat will have no right hand arm rest.
- (c) Redesign the left hand aft pilot's compartment partition to:
  - (1. Provide approximately a 4-inch recess into the previous passenger forward L.H. coat room.
  - (2. Add vertical structural members from floor to ceiling to accommodate new observer seat.
  - (3. Provide for a new pilot's door location approximately 1-1/2 inches to the right.
- (d) Design, tool and install a wall mounted folding seat (having forward stabilizing legs) for the new observer station.
- (e) Revise captain's seat to minimize all possible obstructions on the aft and inboard sides in order to maximize second officer's clearance.
- (f) Modify existing production-type captain seat track platform and tracks by cutting forward the maximum possible to provide second officer clearance without restricting aft movement of the captain.
- (g) Provide floor support structure for new tracks for second officer's seat and revise track location for flight engineer's seat.
- (h) Relocate the lower circuit breaker panel on the aft right hand partition of the pilot's compartment approximately 8 inches outboard and cut the circuit breaker support structure on a diagonal for clearance of the flight engineer's seat.
- (i) Design, tool and install revised bracketry for four (4) gaseous oxygen bottles.
- (j) Relocate pilot's overhead panel (projection-type) flood light from the aft left hand partition to the right hand partition.
- (k) A fourth oxygen bottle will be installed.
- (l) A map case incorporated into a protective guard will be provided over the oxygen bottles.



NEW 2ND OFFICER STATION

The 2nd officer station will have the necessary crew-type oxygen, communication and comfort provisions previously provided when the observer was the 4th man in the pilot's compartment. (This proposal covers the relocation of these existing provisions to a position suitable for the 2nd officer's location.) The seat shall travel laterally inboard and outboard to the left. In addition, the 2nd officer will be provided with a folding table including a drawer and flight kit stowage. The 2nd officer will also be provided with a special red and white type desk light having rheostat control and individual air outlet.

FLIGHT ENGINEER STATION

The flight engineer station will contain the existing safety and comfort provisions, however the seat tracks will be mounted such that the flight engineer can travel inboard and outboard to the right. A special red and white type desk light having rheostat control will be designed and installed.

NEW OBSERVER STATION

The folding seat will have retention in the retracted position. Head padding will be mounted on the partition above the seat. The recessed area surrounding the seat will be faired and padded. The seat will be provided with a shoulder harness (but no inertia reel). Coffee cup holder and ash tray will be provided. An overhead red and white map reading light will be installed. An individual air outlet will also be installed. Crew luggage stowage will be available underneath this seat. Provisions for monitoring 2nd officer's radio and 2nd officer's oxygen regulator panel will be provided. The seat will include a folding foot rest in addition to a left foot rest installation under the second officer's table. An oxygen mask and smoke goggle stowage will be available for the new observer station. A jackbox will include receptacles for intercom microphone, head set and oxygen mask.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: \_\_\_\_\_

CUSTOMER: American Airlines Inc.

MCL 60,048 DTD \_\_\_\_\_

CHANGE NO: 17B

MODEL: 30-5 (Convair "600")

TITLE: Preloaded Baggage System, Revision to

ORIGIN: AAL Letter dated 15 December 1958, and subsequent meeting between AAL and Convair representatives, and AAL telecon to Convair on 5-20-59 (Perkins to Savard).

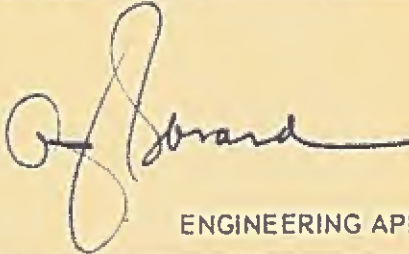
REASON FOR CHANGE: Customer request, and revision to CCP No. 17A.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>129.0 lb</u>	<u>489.0 lb</u>	<u>266,648 INCH LB.</u>

EFFECT ON GUARANTEED PERFORMANCE: \* None      Effect on Operating W.E. C.G.: -0.5% M.A.C.

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: \_\_\_\_\_ AIRPLANES AFFECTED: \_\_\_\_\_

SPECIAL PROVISIONS: \_\_\_\_\_

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



Title: Preloaded Baggage System, Revision to

Origin: AAL Letter dated 15 December 1958, and subsequent meetings between AAL and Convair representatives, and AAL telecon to Convair on 5-20-59 (Perkins to Savard).

Reason for Change: Customer request and revision to CCP No. 17A.

Description of Change:

Page 6, Paragraph 3.1.2.2 TYPICAL LOADING SUMMARY:

Change the below item under "Space Limit Payloads" as follows:

<u>From:</u>	"Cargo (in bins @ 10 lb/cu ft)	3,420	3,420
	Cargo (loose @ 10 lb/cu ft)	5,300	5,300
		<u>23,570</u>	<u>28,685"</u>
<u>To:</u>	"Cargo (**in bins @ 12 lb/cu ft)	4,104	4,104
	Cargo (loose @ 12 lb/cu ft)	6,360	6,360"

Add the following note to bottom of Page 6:

"\*\*See Paragraph 3.19.2.4 for maximum design load."

Page 19, Paragraph 3.7.1.5.4 CARGO DOORS:

Revise the last sentence to read as follows:

"A fixed protective enclosure shall be provided for the door at station 1268 when in the open position in addition to a removable structural protective enclosure provided for the door at approximately station 1147."

Page 86, Paragraph 3.19.2.4 LUGGAGE AND CARGO COMPARTMENTS:

Delete that portion of the paragraph starting with the sixth sentence and on "(A mechanism and motor shall be installed .....)" and substitute the following:

"Where reference to cargo doors by number is made, the following shall apply:

- No. 1 - Forward compartment
- No. 2 - Forward door of aft compartment
- No. 3 - Aft door of aft compartment

A mechanism system and motors shall be installed in the forward compartment for positioning and retaining preloaded baggage bins. The



mechanism speed shall be a minimum of four inches per second. Structure and fittings shall be installed in the No. 1 doorway area for attachment of a baggage bin hoist (ground equipment), and for the indexing of the hoist to the cargo doorway to insure accurate alignment of the bins during loading. Structural provisions only for the future incorporation of hoist index fittings shall be made in the No. 2 doorway area. An electrical receptacle, to be energized from the ground maintenance bus, shall be installed to provide power for the hoist. Lighting, connected to the existing cargo compartment light circuit, shall be installed to provide illumination in the No. 1 and No. 2 cargo door areas for the hoist and receptacle connections. Six pre-loaded-type baggage bins, capable of being loaded to 15 pounds per cubic foot shall be provided in the forward cargo compartment. Each of these bins shall be provided with a hinged access door. Attachment provisions shall be made for protective web gages around No. 1 door when open and closed and as an alternate for No. 2 door when open. Protective web gates shall be installed around No. 2 and No. 3 door when closed.

Provisions shall be made for the later installation of mechanism and motor for handling three baskets in the aft cargo compartment. Provisions for the later installation of two transverse web gates shall be made in the aft cargo compartment, and located: one aft of door No. 2 and one forward of door No. 3.

Attachment provisions for stowage shall be made for the later installation of door web gates around No. 1 and No. 2 doors."

Enclosure: (A) Information Sketch, Model "600" Cargo Compartment

NOTE: Above Sketch not a part of Specification language.

	<u>Weight</u>	<u>Effect on Balance</u>
Effect on Guaranteed Weight Empty:	✓129.0 pounds	✓87,368 inch-pounds
Effect on Fixed Useful Load:	✓360.0 pounds	✓179,280 inch-pounds
Effect on Operating Weight Empty:	✓489.0 pounds	✓266,648 inch-pounds
Effect on Performance:	None	

The following shall not appear in the Specification language:

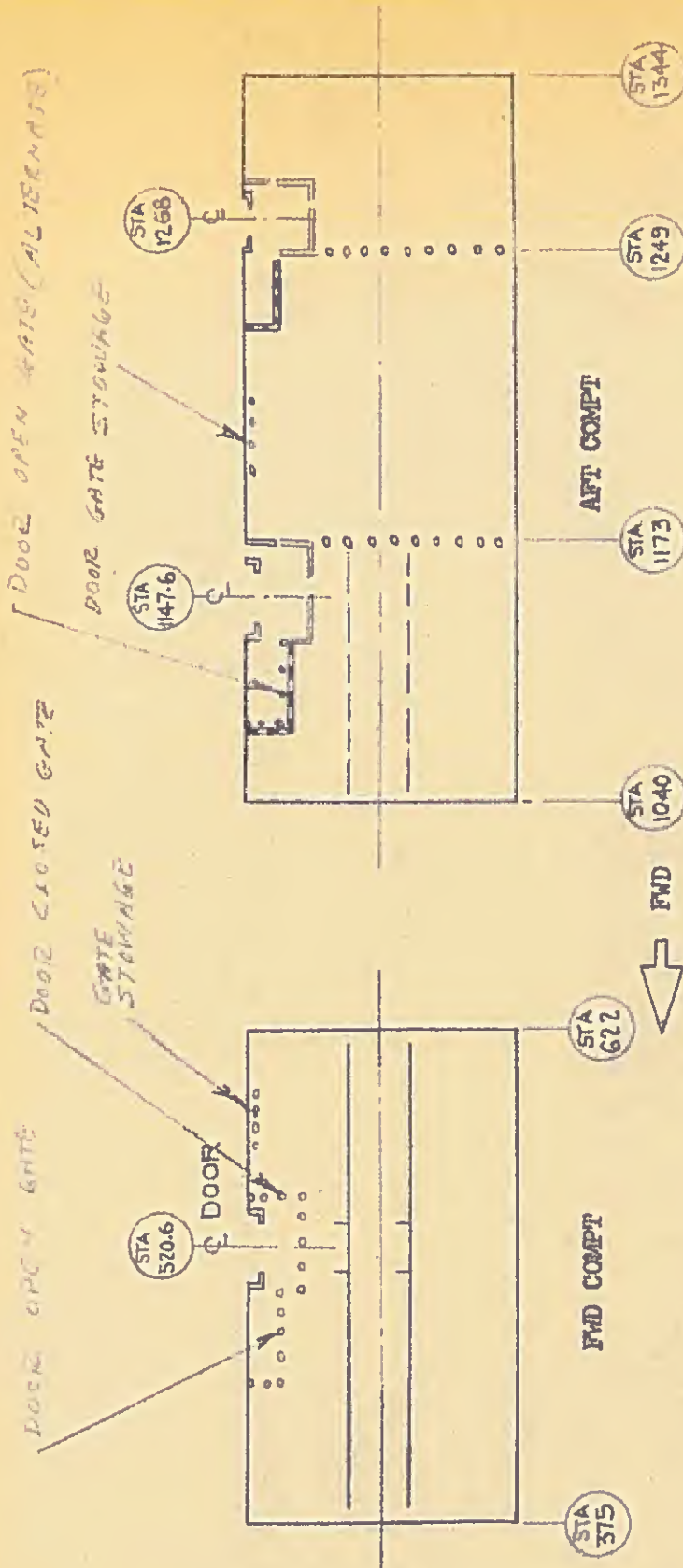
Paragraph 3.7.1.5.4 - CARGO DOORS was revised by CCP No. 15 per RFC No. 55-19-44. The last sentence of this paragraph is further revised by this proposal.

Paragraph 3.1.2.2 - TYPICAL LOADING SUMMARY will be revised to reflect cargo weight totals using weight figure of 12 lbs per cu ft density in a future specification revision after Customer acceptance of this proposal.

The design and operating objectives shall be in accordance with Attachment to Convair Letter No. 10-0-1767 (revised 2 June 1959).



MODEL 600 CARGO COMPARTMENTS  
COP #17A- INFORMATION SKETCH  
(NOT A PART OF SPECIFICATION LANGUAGE)



CODE

- ..... STRUCTURAL PROVISIONS ONLY
- STRUCT PROV ONLY FOR TRACK MECH
- ===== HARD TYPE DOOR BARRIER.
- ==== WEB TYPE DOOR BARRIERS & TRANSVERSE GATES



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE \_\_\_\_\_

CUSTOMER American Airlines Inc.

MCL 60,014 DTD Revised 5 February 1959

CHANGE NO: 16

MODEL: 30-5 (Convair "600")

TITLE Gas Turbine Compressor, For Ground Starting, Installation of

ORIGIN Requested by Mr. Olson of American Airlines by telecon to Mr. Savard of Convair on 2 February 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>114.0 lb.</u>	OPER. WT. EMPTY <u>-99.0 lb.</u>	Weight empty <u>170,489</u> Inch lb. Operating Weight Empty <u>-2,350</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

American Air Lines Inc.  
Change No. 16

Page 1 of 4

Title: Gas Turbine Compressor, For Ground Starting, Installation of

Origin: Requested by Mr. Olson of American Airlines by Telecon to  
Mr. Savard of Convair on 2 February 1959.

Reason for Change: Customer request

Description of Change:

Page 38, Paragraph 3.12.9.6 - PIPING AND FITTINGS:

Delete the last sentence which reads as follows:

"No fuel lines shall be permitted in the main wheel well enclosure or in proximity thereto which might result in line rupture in the event of gear wipeoff"

Page 42a, ENGINE STARTING SYSTEM:

Delete the following from the bottom of the above illustration:

"(to be revised to show in-line combustor system)"

Above illustration will be revised to show connection between the GTC unit and the engine bleed air manifold.

Page 43, Paragraph 3.12.12.1 - IN-LINE COMBUSTOR STARTING SYSTEM:

Add the following after the paragraph title: "(DELETED)", and delete the paragraph.

Page 43, Add the following new paragraph after Paragraph 3.12.12.1:

"3.12.12.2 - GAS TURBINE COMPRESSOR STARTING SYSTEM: A gas turbine compressor shall be installed in the right hand main landing gear wheel well for ground starting of the main engines. A GTC control panel shall be installed at the flight engineer's station for control and operation of the unit. A means for fire containment shall be provided for the installation of the GTC unit. A fire detection system shall be installed with a fire warning indicator light on the GTC control panel. Fuel shall be supplied to the gas turbine, through a shut-off valve, 3/8-inch steel fuel line and a strainer, from the right hand main fuel tank."



Page 45, Add the following after Paragraph 3.14.1.4:

"3.14.1.4.1 - GTC CONTROL PANEL: A GTC control panel, with the following equipment, shall be installed at the flight engineer's station for control and operation of the gas turbine compressor specified in Paragraph 3.12.12.2:

One tail pipe temperature indicator  
One tachometer (percent speed)  
One start/run switch  
One master power switch  
One bleed air load switch  
One load ready light  
One fire warning light  
One duct high temperature warning light."

Page 53, Paragraph 3.16.2.3 - BATTERIES:

Revise the first sentence as follows:

From: "Battery power from a 24 volt nickle cadmium battery shall be provided."

To: "Battery power from a 27.5-volt nickle cadmium battery shall be provided."

Revise the third sentence as follows:

From: "Charging of the battery shall be effected by one 20 ampere unregulated transformer-rectifier which is fed from the pilot's essential ac bus."

To: "The battery shall be charged by one unregulated transformer-rectifier of approximately 50 amperes capacity, which shall be energized from the pilot's essential ac bus."

CONVAIR: SD

American Air Lines Inc.  
Change No. 16

Page 3 of 4

Page 54a, DC ELECTRICAL POWER SYSTEM:

Above illustration will be revised to show 24-AH battery in lieu of 13-1/2-AH battery.

Page 89, Paragraph 3.19.4.2.1 - GENERAL:

Revise the last sentence as follows:

From: "In addition, unit type fire detectors shall be installed in the main landing gear wheel wells."

To: "In addition, unit-type fire detectors shall be installed in the main landing gear wheel wells, and inside of the shroud of the gas turbine compressor described in Par. 3.12.12.2."

Page 89, Paragraph 3.19.4.2.2 - INDICATORS:

Change the period at end of last sentence to a comma, and add the following:

"and a separate steady light shall indicate an overheat condition of the GTC unit."

Page 89b, WHEEL WELL FIRE DETECTION:

Above illustration will be revised to show fire detection for GTC unit.

Page 95a - AIR CONDITIONING - PRESSURIZATION SYSTEM:

Above illustration will be revised to show connection between GTC unit and main bleed air system.



## Page A-3, APPENDIX I-C, PROPULSION EQUIPMENT:

Delete the following item from the Description List:

"2 In-line Combustor	AIRResearch	352390	18.5"
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## Page A-13, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Revise the first item in the Description List as follows:

<u>From:</u>	"1 Battery, Storage Nickle-Cadmium (1-24- volt 13.5a.h.)	30.0"
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<u>To:</u>	"1 Battery, Storage, Nickle Cadmium (27.5- volt 24-AH)	Sonotone (To be assigned)	37"
------------	--	---------------------------	-----

## Page A-22, APPENDIX I-C, PRESSURIZATION, ANTI-ICING AND AIR CONDITIONING EQUIPMENT:

Add the following item to the Description List:

"1 Gas Turbine Compressor"	(To be assigned)
----------------------------	------------------

## Page A-27, APPENDIX I-C, FIRE DETECTION EQUIPMENT:

Add the following item to the Description List:

"2 Fire Detector Units (GTC)	Fenwal	17343-35"
------------------------------	--------	-----------

Effect on Weight Empty:	14.0 lbs
Effect on Balance:	70,489 in/lbs
Effect on Performance:	None

The following shall not appear in the Specification language:

"The effects of RFC No. 55-16-37, as concerns change of storage battery voltage from 24 to 27.5 volts, are included in this proposal."

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL Rev. 6 February 1959

SPEC NO.: ZD-30-005

DATE: 21 January 1959

CUSTOMER: American Air Lines

MCL 60,013 DTD \_\_\_\_\_

CHANGE NO: 15

MODEL: 30-5

TITLE: **Miscellaneous Master Changes Requested by Contracts Department**

ORIGIN: **Sales Order 600-5-3 and as noted on the referenced RFC's**

REASON FOR CHANGE: **To incorporate into Detail Specification the RFC's listed on page 1 hereof**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	<b>**For operating weight empty change.</b> <div style="text-align: right;">346,341** INCH LB.</div>
+275.0	+228.0	

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Miscellaneous Master Changes Requested by Contracts Department

Origin: As noted on listed RFCs

Reason for Change: To incorporate the following RFCs into the Detail Specification:

55-1-23	55-16-40
55-4-12	55-16-41
55-5-11	55-16-42
55-7-6	55-16-44
55-7-13	55-16-45
55-8-16	55-16-46
55-8-19	55-16-47
55-8-25	55-16-48
55-10-20	55-16-53
55-10-21	55-16-54
55-10-22	55-17-28
55-11-10	55-17-31
55-12-48	55-17-36
55-12-53	55-17-37
55-12-62	55-17-39 ← 55-17-38
55-12-63	55-19-44
55-12-82	55-19-47
55-12-85	55-19-69
55-12-87	55-19-71
55-14-14	55-19-81
55-14-17	55-20-24
55-14-22	55-20-33
55-14-24	55-20-34
55-14-26	55-20-37
55-14-27	55-APP-14
55-14-30	55-APP-36
55-15-9	55-APP-37
55-16-39	55-APP-39

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>	
6	55-1-23	Under Useful Load Breakdown	
		<u>Change:</u> Oxygen bottles (4)	187 lb
		<u>To:</u> Oxygen bottles (3)	140 lb

PageRFCParagraph

Page 2 of 23

11 55-8-25 3.4.2 DESIGN SPEEDS

Change: Design Speed (main landing  
gear extension) 375K or M = 0.89Design Speed (leading edge  
device extension) \*220K or M = 0.50To: Design Speed (main landing  
gear extension) 320K or M = 0.83Design Speed (leading edge  
device extension) 245K or M = 0.60Delete: Note at the bottom of the page, which  
reads as follows:\*NOTE: This assumes leading edge device automati-  
cally closes when design speed is exceeded.

15 55-8-25 3.5.4.5 LANDING GEAR

Delete the entire paragraph

55-5-11 3.5.5 ANTI-SHOCK BODIES

Add the following:

"Anti-shock bodies shall be so mounted as to permit removal and replacement in service. Special attention shall be given to the design of the structure to minimize cracking, especially as may be caused by high level sound energy."

18 55-7-13 3.7.1.4 WINDOWS

Add the following to the paragraph:

"Structural provisions shall be made in the fuselage for one window in area of No. 2 buffet centered approximately on Station 480 and two windows in area of No. 3 buffet same location as L.H. side. No window frames or skin cutouts will be provided."

19 55-19-44 3.7.1.5<sup>4</sup> CARGO DOORSRevise paragraph to read as follows:

"Two doors, one for each cargo compartment, shall be provided. The doors shall be plug type and shall slide forward in the cargo compartment. The



PageRFCParagraph

Page 3 of 23

doors shall be operable from inside or outside. The door opening dimensions shall be approximately 41 inches projected vertical height by 48 inches wide to accommodate preloaded cargo bins described in paragraph 3.19.2.4.

These doors shall be centered approximately as follows:

Sta. 519 in fwd compartment  
Sta. 1143 in aft compartment

The rear cargo compartment shall be provided with an additional plug type door and shall slide fwd in cargo compartment. The door opening dimensions shall be 26 inches projected vertical height by 34 inches wide. This door shall be centered at approximately Sta. 1268. A fixed protective enclosure shall be provided for this door when in the open position."

22

55-8-25

### 3.8.1 GENERAL DESCRIPTION AND COMPONENTS

Change the last sentence to read as follows:

"The main landing gear shall be designed for extension at 320 knots EAS."

55-8-16

### 3.8.1.3 CONTROLS

Add the following after the fifth sentence:

"The 'on-center' (no-load) position of the centering spring shall correspond to the handle position when it has traveled approximately 20 percent toward the 'DOWN' position from the 'UP' position."

55-8-19

### 3.8.1.3 CONTROLS

Add the following:

"Means shall be provided to permit visual indication that the nose and main landing gears are in the 'down-and-locked' position. An access hole in the passenger compartment floor, two viewing windows and two mirrors shall be provided and so located as to permit visual inspection of indicators on main gear latches. A viewing window between the electronics compartment and the nose wheel well shall be provided to permit a visual check of nose wheel locking."



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
-------------	------------	------------------

23	55-8-25	3.8.1.3.1 LANDING GEAR AS SPEED BRAKE
----	---------	---------------------------------------

Delete the entire paragraph

28	55-10-20	3.10.1.5 STABILIZER SYSTEM
----	----------	----------------------------

Revise second sentence to read as follows:

"Normal control of the stabilizer shall be accomplished by hydraulic power. Emergency control shall consist of an electrical drive and a hand crank for manual operation. The hand crank along with an interphone for pilot communication shall be installed immediately forward of the rear pressure bulkhead. The electrically driven emergency system shall be operable from the cockpit."

55-10-22	3.10.1.5 STABILIZER SYSTEM
----------	----------------------------

Add the following sentence:

"A switch shall be added to the outboard end of each pilot control wheel to permit pilot trimming of the horizontal stabilizer."

55-10-21	3.10.2.1 LIFT AND DRAG INCREASING DEVICE SYSTEMS
----------	--

Delete the second sentence which reads as follows:

"The leading edge devices shall further be controlled by a 'Q' switch or tie-in with angle of attack indicator and shall automatically extend or retract when reaching a certain speed."

30	55-11-10	3.11.5 FIREWALLS
----	----------	------------------

Change last sentence of paragraph to read:

"A firewall shall be installed in the upper part of the pylon to provide protection for the wing leading edge area in the event of fire in the pylon."

34	55-12-63	3.12.5.2.1 INLET VORTEX DESTROYER
----	----------	-----------------------------------

Change second sentence to read:

"The pressure source shall be engine bleed air controlled to operate only when the airplane is on the ground."



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
35a	55-12-85	The illustration depicting the propulsion fluid system will be revised to show the combining of the cross feed and center tank jettison lines.
39	55-12-53	3.12.9.9.1 QUANTITY GAGES  <u>Delete</u> the last sentence, which reads:  "A totalizing system shall be installed."
41	55-12-82	3.12.9.13.3 REFUELING CONTROLS  <u>Add</u> the following to the paragraph:  "Indicator lights shall be provided on the re-fueling panel to indicate that the leveling shut-off controls have functioned for pre-set automatic, manual, full and pre-check operation."
42	55-12-62	3.12.11.2 GENERAL CONTROLS  <u>Add</u> the following sentence after the second sentence:  "The reverse thrust levers shall be designed in such a manner to give optimum pilot and copilot visibility of the radar scope."
43	55-12-87 55-12-48	3.12.12 STARTING SYSTEM  <u>Add</u> the following to the paragraph:  "A manual shut-off switch shall be installed in the pilot compartment to allow manual shut-off of the high pressure air compressor. While on the ground the air compressor shall operate using a 3 gpm auxiliary electrical pump. A gage shall be installed on the engine bleed control panel near the high duct pressure light to permit reading engine bleed pressures during cross bleed starting."
44	55-14-30	PILOT'S INSTRUMENTS  <u>Delete</u> :  One auto-pilot yaw damper tester

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
44	55-14-17	3.14.1.1 PILOT'S INSTRUMENTS <u>Delete:</u> One RMI
		3.14.1.2 COPILOT'S INSTRUMENTS <u>Delete:</u> One RMI
44a	55-14-24	INSTRUMENT PANEL ARRANGEMENT (ILLUSTRATION)  An illustration, incorporating the provisions of this RFC, will be submitted at a later date.
44b	55-14-22	PILOT'S AND COPILOT'S PEDESTAL (ILLUSTRATION)  A revised illustration, incorporating the provisions of this RFC, will be prepared.
45a	55-14-14	PILOT'S AND COPILOT'S CONSOLE AND WING PANELS (ILLUSTRATION)  A revised illustration, incorporating the provisions of this RFC, will be prepared.
45c	55-14-26	PILOT'S AND COPILOT'S OVERHEAD CONTROL PANEL (ILLUSTRATION)  The overhead control panel illustration will be revised to incorporate changes agreed upon in the cockpit review, dated 6 October 1958.
46	55-14-27	3.14.2 NAVIGATION EQUIPMENT  <u>Delete</u> the existing paragraph title and also the text, which reads "Not required," and substitute the following paragraph 3.14.2 and subparagraphs:  3.14.2 <u>Flight and Navigational Instruments - Equipment Interconnection and Description</u>  3.14.2.1 <u>Radio Magnetic Indicator</u>



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
		3.14.2.1.1 The captain's indicator shall receive information as follows: <ul style="list-style-type: none"><li>a. Narrow pointer - ADF No. 1 or VOR No. 1.</li><li>b. Wide pointer - ADF No. 2 or VOR No. 2. Switches are provided on the No. 1 Continental Compass RMI.</li></ul>
		3.14.2.1.2 The first officer's indicator shall receive information as follows: <ul style="list-style-type: none"><li>a. Narrow pointer - ADF No. 1 or VOR No. 1.</li><li>b. Wide pointer - ADF No. 2 or VOR No. 2. Switches are provided on the No. 2 Continental Compass RMI.</li></ul>
		3.14.2.2 <u>Course Deviation Indicator</u>
		3.14.2.2.1 The captain's indicator shall receive information as follows: <ul style="list-style-type: none"><li>a. VOR system No. 1.</li><li>b. Compass system No. 1 (guarded switch required) or Compass system No. 2, which includes the heading inputs to the compass dial, course select synchro, and pre-select heading synchro for either position of the switch.</li></ul>
		3.14.2.2.2 The first officer's indicator shall receive information from: <ul style="list-style-type: none"><li>a. VOR system No. 2.</li><li>b. Compass system No. 2, which includes the heading input to the compass dial only; the course select synchro and the pre-select heading synchro are not used.</li></ul>
		3.14.2.3 <u>Horizon and Director Indicator</u>
		3.14.2.3.1 The captain's indicator shall receive information from:

PageRFCParagraph

- a. No. 1 Vertical Gyro (guarded switch required) or No. 2 Vertical Gyro via the bootstrap autosyns in the first Officer's Horizon and Director Indicator.
- b. The flight steering computer or VOR No. 1 with a switch provided on the indicator.
- c. Glideslope system No. 1.

3.14.2.3.2 The first officer's indicator shall receive information from:

- a. No. 2 Vertical Gyro.
- b. The flight steering computer or VOR No. 2 with a switch provided on the indicator.
- c. Glideslope System No. 2.

3.14.2.4 Flight Steering Computer

3.14.2.4.1 The computer shall receive information from:

- a. No. 1 Vertical Gyro or No. 2 Vertical Gyro (same switch as used for alternate Horizon).
- b. VOR system No. 1.
- c. Selected course and selected heading information from the captain's course deviation indicator.

3.14.2.5 Autopilot

3.14.2.5.1 The autopilot shall receive information from:

- a. No. 2 Vertical Gyro.
- b. VOR system No. 1 and Glideslope system No. 1.
- c. Heading from the Compass system No. 2.
- d. Course select and pre-select heading information from the captain's course deviation indicator.



Page    RFCParagraph

Page 9 of 23

The Compass system used with the autopilot is referred to as Compass system No. 2. The Vertical Gyro used with the autopilot is referred to as "Vertical Gyro No. 2."

3.14.2.6    Flight Steering Computer Mode Selection

3.14.2.6.1    There shall be three mode selector switches on the captain's instrument panel and an indicator light on the first officer's instrument panel as follows:

- a. "Steering Gain" switch with two positions, "Normal" and "Final Approach," whose purpose is to start desensitizing the flight steering computer when placed in the "Final Approach" position.
- b. "Computer Mode" switch with two positions, "MAD HDG" and "VOR/ILS", whose purpose is to select either the chosen magnetic heading or VOR/ILS as an input to the computer. The frequency selector of the VOR receiver No. 1 will serve to select either the VOR or the ILS localizer as an input to the computer.
- c. A switch with two positions, "Back" and "Front", whose purpose is to reverse the polarity of the VOR deviation input signal to the computer and the captain's and first officer horizon and director indicators when placed in "Back" position, and is to be used in the VOR/ILS mode only. The autopilot will be interlocked such that it cannot be engaged in the VOR/LOC or GS modes when this switch is in the "Back" position. In addition, the "Back Beam" switch shall reverse the sense of the course selection signal to the steering computer.
- d. An amber indicator light shall be installed on the first officer's instrument panel to indicate when the "Back Beam" mode has been selected.

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
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51	55-15-9	3.15.1.10 FILTRATION
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Delete the existing paragraph and substitute the following:

"Filters shall be installed in suction, pressure, and case drain lines for each engine driven pump so that particles from the pump cannot contaminate the rest of the system. A filter shall be also installed downstream from the auxiliary pump."

53	55-16-45	3.16.2.4.1 POWER TRANSFER
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Add the following after the second sentence:

"The power transfer switch circuitry shall be such that if the ground power source is interrupted the switch shall be actuated again to obtain ground power."

	55-16-47	3.16.2.4.3 EMERGENCY POWER SYSTEM
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Add the following sentence to the end of the paragraph:

"The emergency ac system shall incorporate a bus failure warning light, located adjacent to the bus selector switch."

54	55-16-42	<u>Add</u> the following new paragraph:
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"3.16.4.1 ELECTRICAL EQUIPMENT LIST: The Maintenance Manual shall provide a list of all electrical equipment and shall contain the following data pertinent to each item listed:

Convair part number  
Manufacturer's part number  
Item application or drawing  
Number of circuits applicable and  
number required

57	55-16-39	3.16.5.10 WIRE IDENTIFICATION
----	----------	-------------------------------

Delete the existing last sentence and substitute the following:



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
		"Individual Harnesses shall be permanently identified at branch points and at terminations. Cordage Diagrams shall be provided in the Maintenance Manual identifying and locating individual harnesses within each bundle."
	55-16-41	<u>Add</u> the following new paragraph:  "3.16.5.10.1 WIRE LIST: A wire list shall be provided in the Maintenance Manual and shall contain the following data for each wire:  Wire number Part or type number of each wire Drawing number of circuit when used Harness drawing number Connection drawing number"
62	55-16-48	3.16.8.2.6 CONSOLE LIGHTING  <u>Revise</u> the last sentence to read as follows:  "Red and white flood lighting, controlled by a continuously dimmable control, shall be provided for each side console."
	55-16-53	3.16.8.2.7 UTILITY LIGHTS  <u>Revise</u> the paragraph to specify a fluorescent lamp in lieu of a C-4A type. The paragraph will then read as follows:  "A fluorescent light assembly shall be installed at the flight engineer's station for his use."
64	55-16-40 55-16-46	3.16.8.3.10 EXTERNAL SERVICE POWER SYSTEM  <u>Revise</u> the paragraph to read as follows:

Page      RFCParagraph

"It shall be possible to energize certain interior lighting, oil quantity indicators, pre-loaded baggage system, and refueling controls and indicators from the external power source without the necessity of energizing the power distribution system in the aircraft. This lighting shall include cabin general lighting, cockpit general lighting, electrical rack area, baggage compartments, and main and nose wheel wells."

64

55-16-54

3.16.8.4.2

Change title and description to specify lights ~~for~~ all wheel wells. The paragraph will then read as follows:

"WHEEL WELL LIGHTS: A light shall be provided to illuminate each wheel well. Each light shall be controlled by an individual switch in the corresponding wheel well. Control for all lights shall be from one switch located on the pilot's overhead panel."

55-16-44

3.16.10.3 EXTERNAL POWER

Revise the paragraph to read as follows:

"Two receptacles for external ac power shall be provided forward of the wing. The receptacles shall ... ground maintenance and operational loads. A receptacle shall be provided in the nose wheel area to provide power for the following: auxiliary hydraulic pump, cockpit general lighting, cabin general lighting, VHF Comm. which uses top antenna, position lights, and anti-collision lights. Ground power interlocking similar to that used in the main receptacle shall be provided."

67

55-7-6

Add the following new paragraph:

"3.16.11.3.1 DOOR OPEN WARNING INDICATORS: An individual door open warning indicator light shall be provided at the flight engineer's



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
		station. A warning light for each of the two main entrance doors, the two service doors, the two cargo doors, the electronics and hydraulics doors. The warning system shall indicate each specific door which is not fully closed."
69	55-16-42	3.17.1 EQUIPMENT  <u>Add</u> the following subparagraph to the end of the paragraph:  "The Maintenance Manual shall provide a list of all electronic equipment and shall contain the following data pertinent to each item listed:  Convair part number Manufacturer's part number Item application or drawing Number of circuits applicable and number required."
	55-APP-37	3.17.1.1 CONTROL PANELS  <u>Delete:</u>  Microphone selector (3)
71	55-16-41	<u>Add</u> the following new paragraph:  "3.17.1.3.2.1 WIRE LIST: A wire list shall be provided in the Maintenance Manual and shall contain the following data for each wire:  Wire number Part or type number of each wire Drawing number of circuit when used Harness drawing number Connection drawing number

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
76	55-17-36 55-17-38	3.17.2.3.1 AUDIO SELECTOR  <u>Revise</u> the first sentence to read as follows:  "Audio selector panels shall be provided for pilot and copilot and located on the pedestal."  <u>Add</u> the following sentence to the end of the paragraph:  "Microphone and headphone jacks shall be installed in the nose wheel well area to permit utilization of airplane communication equipment while being towed by a ground tow tug. Cockpit personnel for radio control panel operation will be required. The copilot's communication jacks for his headset shall be located on the forward edge of the flight engineer's panel."  55-17-37 3.17.2.3.4 SERVICE INTERPHONE  <u>Add</u> the following sentence to the paragraph:  "A D.P.S.T. switch shall be installed on the flight engineer's panel to isolate the flight crew, nose wheel well and the fore and aft buffet station from the remainder of the interphone system in a manner which leaves the flight crew and nose wheel well and fore and aft buffet stations operative. This switch shall be labeled 'Maintenance Interphone' and shall have an 'ON' and 'OFF' position."  77 55-17-28 3.17.2.3.5 SMOKE AND OXYGEN MASK AND MICROPHONE  <u>Revise</u> the first sentence to read as follows:  "The pilot's combination smoke and oxygen masks shall contain a microphone connected into the audio system."  55-17-39 3.17.2.3.6 PUBLIC ADDRESS SYSTEM  The concept of improved protection for the P.A. handset is incorporated in the design and will not be reflected in the Detail Specification.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
79	55-17-31	<p>3.17.4.1 WEATHER PENETRATION AIRBORNE RADAR</p> <p>In the fourth sentence, specify one range-azimuth indicator in lieu of two. The sentence will then read as follows:</p> <p>"One range-azimuth indicator conforming to ARINC Characteristic No. 529, with respect to size, shall be installed on the forward pedestal panel."</p> <p>In the last sentence, specify one scope indicator hood in lieu of two. The sentence will then read as follows:</p> <p>"One scope indicator hood shall be installed with provisions for stowage."</p>
84	55-19-81	<p>3.19.2.1.4 WATER SYSTEM</p> <p><u>Revise</u> the paragraph to read as follows:</p> <p>"A pressurized potable water system shall be provided to supply the lavatory wash basins and buffets. The tank capacity shall be 50 gallons of water with an adequate air space to act as a pressure reservoir. This pressure system shall guarantee delivery of water at a minimum flow of .75 gpm at a minimum pressure of 20 psi to all buffets with all four buffets with all four buffet water supplies and two lavatory water supplies (lavatories must have adequate flow) in use simultaneously. The system shall be located and designed to prevent freezing on the ground (with ground power on ac) or in flight. Two air pumps shall be installed and individual pump controls provided. Each air pump assembly shall be rated for continuous duty operation. A low pressure warning light and individual pump control switch shall be installed on the flight engineer's panel.</p> <p>The tie-in point of water lines supplying water to the galleys shall be coordinated.</p>



Page    RFCParagraph

A means of filling from the ground at a rate of at least 10 gpm when maintaining a 25 psi fill pressure shall be provided. An overflow pipe from the tank, which is automatically put into the open position when filling or draining and automatically put into the closed position when not filling or draining, shall visually indicate to the ground service connection when the tank is full. The fill port shall employ the use of a standard 3/4-inch Roylon nipple and cap and the overflow and drain lines shall terminate at a common 3/4-inch flush fitting at the skin to which a hose may be attached. The entire system shall be designed to take city water (120 psi) pressure during filling and sanitizing with overflow open, and a 50 ft 3/4 inch diameter hose connected to the overflow fitting. The material used in the design of this system must not be affected by the use of 100 ppm (parts per million) chlorine solutions."

55-19-71

## 3.19.2.2 LAVATORIES

Revise the paragraph to read as follows:

"Four lavatory compartments shall be provided, two located forward on the R.H. side of the passenger compartment and two aft. Each lavatory shall be equipped with a Wickland flushing type toilet with standard airline connections (four-inch Roylon flushing outlets, P/N 2651-127X or equivalent, and a one-inch Roylon service charging and flushing inlet) for ground servicing without entering the lavatory compartments. A wash basin with a 3/4-inch diameter drain containing a manually operated drain stopper with a replaceable seal and a spring-loaded faucet shall be provided in each lavatory. A two-quart capacity hot water tank, equipped with electrical heating elements, shall be installed in each of the four lavatories to supply hot water to each lavatory wash basin.



PageRFCParagraph

Approximately 40 gallons of waste water tankage shall be provided for each of the forward and aft pairs of lavatories. Each pair of lavatory drains shall be connected through a Y-fitting to a single connection for ground lavatory dumping. A flush line for each lavatory (two forward and two aft-- totalling four lines) shall be provided to accomplish the ground dumping operation and recharging operation. Pressure caps shall be provided for the drain and flush lines. The dumping and recharging rate shall be at least 10 gpm while maintaining a pressure of 25 psi at the inlet to the servicing connection. Overboard ventilation for the toilets shall be provided. A by-pass shall be provided in the vent line to prevent completely blocking the air flow when the toilet receptacle opening is completely covered. Toilet seat replacement shall not require the removal of decorative shrouding."

86

55-19-47

3.19.2.6.1 FLARE DISPENSER

Delete reference to "provisions" and substitute "space provisions". The paragraph will then read as follows:

"FLARE DISPENSERS (SPACE PROVISIONS): Space provisions shall be made for the installation of two flare dispensers."

87

55-19-69

Add the following new paragraph:

"3.19.2.7.12 CHART TABLES: A map table shall be provided on both the pilot's and copilot's consoles. The map tables shall be fabricated of suitable lightweight material. When in use, the tables shall cover their respective console areas over the flight kit stowage area. Stowage provisions shall be made."

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
90a	55-1-23	<p>GASEOUS OXYGEN SYSTEM (ILLUSTRATION)</p> <p>A revised schematic showing three bottles plus space provisions for installation of a fourth bottle will be provided.</p>
91	55-1-23	<p>3.19.5.3 OXYGEN SUPPLY REQUIREMENTS</p> <p><u>Revise</u> subparagraph 2.d. to read as follows:</p> <p>"One hour, 30 minutes flight at 14,000 feet."</p>
94	55-20-37	<p>3.20.1.9 AIR DISTRIBUTION</p> <p><u>Revise</u> the entire paragraph to read as follows:</p> <p>"The total fresh air supply to occupied compartments shall be approximately 160 lb/min. at sea level and approximately 120 lb/min. at 35,000 feet. Means shall be provided for automatically controlling the inlet air temperature so that a 2°F bulk air temperature differential measured at the temperature control sensors may be maintained between the forward and aft passenger compartments. It shall be possible to maintain this differential under any normal flight condition with a maximum loading differential of 62 passengers and with the compartment partition located at any of the five positions shown in ZD-30-005 APP II "Mixed Seating Arrangement"."</p>
95	55-20-24	<p>3.20.1.12.1 GROUND AIR CABIN TEMPERATURE</p> <p><u>Revise</u> the last sentence by specifying cooling system capabilities for 121 occupants in lieu of 104. The sentence will then read as follows:</p> <p>"The cooling system shall be capable of maintaining, on the ground with engines at idle rpm or with ground electric power connected and with all doors and windows closed, and</p>



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
		with 121 occupants, an occupied compartment average effective temperature as defined by ASHVE of 75°F with an outside temperature of 40°F above NACA standard and 33 percent relative humidity."
96	55-20-33	<p>3.20.2.1 ANTI-ICING OF NONTRANSPARENT AREAS</p> <p><u>Add</u> the following as the second sentence:</p> <p>"The wing leading edge devices shall be de-iced or anti-iced in both the extended and retracted positions."</p>
97	55-20-34	<p>3.20.2.5 ICE DETECTOR SYSTEM</p> <p>Delete the first, second and third sentences, and substitute the following:</p> <p>"Manual control only of the airplane and engine anti-icing systems shall be provided. An ice detector system shall be installed with warning light indication in the cockpit. If possible, ice detector units will be installed so as to be visible from the cockpit. Ice detector units will not be installed in the engine inlet ducting."</p>
101	55-5-11	<p>3.23 INTERCHANGEABILITY - REPLACEABILITY</p> <p><u>Add</u> to (a) Interchangeable Parts:</p> <p>Wing Anti-shock Bodies, fairing sections aft of fuel bulkhead (in like positions on airplane).</p> <p><u>Add</u> to (b) Replaceable Parts:</p> <p>Wing Anti-shock Bodies, forward fuel-carrying sections (in like positions on airplane).</p>

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>	
A-1	55-APP-39	APPENDIX I-A	
		FURNISHINGS	
		<u>Delete:</u>	
		3 Buffets (including prov. for Buyer-furnished items noted in Appendix I-B)	726.0
		1 Buffet stowage	61.0
		<u>Add:</u>	
		4 Buffets (including prov. for but exclusive of all insert and storage items to be noted in Appendix I-b) (Struc- ture only)	900.0

A-1 55-APP-36  
{ Cont 1 }  
{ Cont 2 }  
{ Cont 3 }

APPENDIX I-A  
ELECTRONIC EQUIPMENT

Radio Compass (ADF)

Change: 1 Receiver Collins 51Y-3 38.0

To: 2 Receiver Collins 51Y-3

Weather Radar

Change: 2 Indicator RCA M137524-5 32.0

To: 1 Indicator RCA M13724-5

Change: 2 Indicator Hood AAL DBA-1019 1.0

To: 1 Indicator Hood AAL DBA-1019

Control Panels

Change part number of ATC Beacon Panel to G440V  
(was G440).



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
A-7	55-14-17	APPENDIX I-C  FLIGHT INSTRUMENTS  <u>Delete:</u> 2 RMI Indicator Bendix 36105-IN
A-9	55-12-53	APPENDIX I-C  <u>Engine Instruments - Fuel System</u>  <u>Delete:</u> 1 Indicator Fuel Simmonds 393016- Quantity Totalizer 01585
A-11	55-14-30	APPENDIX I-C  <u>Auto Pilot (Bendix (E/P) Type PB-20)</u>  <u>Delete:</u> 1 Test Adapter, Eclipse-Pioneer 15251 Rate Gyro
A-12	55-12-48	APPENDIX I-C  <u>Hydraulic and Pneumatic</u>  <u>Add:</u> 1 Indicator, Bleed Air Pressure U.S. Gauge
A-15	55-16-53	APPENDIX I-C  <u>Electrical Power Equipment</u>  Cockpit Lights:  <u>Delete:</u> 1 Flight Engineer's Grimes Mfg D-6810A Utility Light  <u>Add:</u> 1 Flight Engineer's Fluores- cent Light
A-19	55-APP-37	APPENDIX I-C  <u>Control Panels (Electronic)</u>  <u>Delete:</u> 3 Microphone Selector Panel Gables G-802

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
A-21	55-12-48	<p>APPENDIX I-C</p> <p><u>Pressurization Equipment</u></p> <p><u>Add:</u> 1 Transmitter, Bleed Air Pressure U.S.Gauge</p>
	55-20-34	<p>APPENDIX I-C</p> <p><u>Anti-Icing Equipment</u></p> <p><u>Delete:</u> 2 Detector, Ice Goodyear 3065-1802 Warning Can. Appl. Res. Ltd. C.A.R.L. Type T260- MK12A</p>
	55-20-24	<p>APPENDIX I-C</p> <p><u>Pressurization Equipment</u></p> <p><u>Change:</u> 2 Recirculating Ham.Standard 522838 Valve</p> <p><u>To:</u> 1 Recirculating Ham.Standard 522838 Valve</p> <p><u>Delete:</u> 1 Recirculating Ham.Standard 538343 Check Valve</p>
A-23	55-APP-14	<p>APPENDIX I-C</p> <p><u>Landing Gear Equipment</u></p> <p><u>Change:</u> 8 Tires, Main U.S.Rubber TypeVII 936.0 Wheel (41X HP22PR 14.5-16)</p> <p><u>To:</u> 8 Tires, Main*Goodyear(25%) TypeVII 960.0 Wheel (41X-Goodrich(25%) HP22PR 992.0 14.5-16) Firestone(25%) 1008.0 U.S.Rubber(25%) 1036.8</p>



Page      RFC      Paragraph

Change: 2 Tire, Nose U.S.Rubber TypeVII 91.0  
Wheel (29X7.7) HP16PR

To: 2 Tire, Nose \*Goodyear(25%) TypeVII 87.0  
Wheel (30X-Goodrich(25%) HP14PR 97.6  
8.8) Firestone(25%) 108.0  
U.S.Rubber(25%) 91.2

\*Manufacturer's Weight Empty guarantee includes the weight of the lightest tires (Goodyear). The manufacturer's weight empty guarantee will be adjusted for each airplane by the amount of variance from the lightest tire weights shown.

A-26      55-1-23

APPENDIX I-C

Oxygen Equipment

Change: 4 Cylinder - High Walter-Kidde #890941 140  
Pressure Oxygen  
(lightweight)  
107 cu.ft.

To: 3 Cylinder - High Walter-Kidde #890941  
Pressure Oxygen  
(lightweight)  
107 cu.ft.

Effect on Operating Weight Empty: 228.0 pounds  
Effect on Weight Empty: 275.0 pounds  
Effect on Balance: 346.3+1\*\*  
Effect on Performance: None

\*\*For operating weight empty change.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL Rev. 20 January 1959

SPEC NO.: ZD-30-005

DATE: 31 December 1958

CUSTOMER: American Air Lines

MCL 60,012 DTD \_\_\_\_\_

CHANGE NO: 14

MODEL: 30-5

TITLE: Miscellaneous Master Changes Requested, by Contracts Department

ORIGIN Sales Order 600-5-4 AND 600-5-5 and as noted, on the referenced RFC

REASON FOR CHANGE. To incorporate into Detail Specification  
The RFCs listed on page 1 hereof.


EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
+7.0	+7.0	+13,521	INCH L.B.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS.

EFFECT ON PRICE PER AIRPLANE

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Miscellaneous Master Changes requested, by Contracts Department

Origin: As noted on listed RFCs

Reason for Change: To incorporate following RFCs into Detail Specification

55-4-13  
55-19-40  
55-19-46  
55-19-66  
55-19-67  
55-19-70  
55-20-29

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
3b	55-19-67	FIG. 1-2 Six place lounge configuration will be shown on revised illustration.
12	55-4-13	3.4.4 LOADS:  Change last sentence to read:  The rear galleys support structure shall withstand 12g forward ultimate loads.  Buffet support structure installations shall be designed to support the following loads:  Buffet No. 1 700.0 lb Buffet No. 2 750.0 lb Buffet No. 3 750.0 lb Buffet No. 4 650.0 lb
65	55-19-70	3.16.10.1 BUFFET:  Change paragraph to read:  Provisions shall be made for maximum buffet equipment electrical load of 10 kw for each of No. 1, 2, 3 and 4 buffet sections during normal flight conditions. Twist lock type cannon plug electrical connections to all four galleys shall be provided, the location of which shall be coordinated.

Page   RFC   Paragraph

82   55-19-46   3.19.1.1.5 PASSENGER SEATS:

Change fourth sentence of paragraph to read:

Floor type seat attach rails shall be provided on both floor and side wall and shall permit installation of seats in any fore and aft position at one inch increments.

82   55-19-70   3.19.2.1.1 BUFFET:

Change paragraph to read:

A buffet comprised of four customer-furnished units shall be installed. Units No. 1 and No. 2 shall be located on either side of the fwd service door, shall have food storage provisions to accommodate approximately 28 passengers each and shall be 32" fore and aft including work surface extensions. Unit No. 3 shall be located forward and unit No. 4 aft of the aft right hand service door, each having food storage provisions for approximately 28 passengers. Removable decorative trim panels, to be coordinated at a later date, shall be provided for trimming the inboard and back sides of these galleys, by the aircraft manufacturer in addition to closing trim for the outboard side and top of the galleys. For each pair of galley units the fore and aft space allotment shall be 101 inches overall not including bulkheads, trim, etc.

The water connection shall be a quick disconnect type and shall be self sealing at both galley and aircraft sides of line. Aircraft sidewall and/or ceiling trim shall not be fastened to the buffet. However, adequate sealing shall be accomplished between galley outboard side and sidewall lining.

88   55-19-40   3.19.3.6 HAT RACKS:

Add to the paragraph:

There shall be no passenger hat rack in the lounge area of the Standard Interior. The absence of the hat rack in the lounge deletes all passenger conveniences normally found in the hat rack in this area, except oxygen masks which shall be provided in suitable locations, as two masks for each double lounge seat. The public address system speakers (Ref. paragraph 3.17.2.3.6) normally found in the hat rack in the lounge area shall be provided in a location in the ceiling or side wall.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
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94	55-20-29	3.20.1.8 OCCUPIED COMPARTMENT:
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Add to the paragraph:

No individual air outlets shall be required for the lounge area. Provisions shall be made to add air supply ducting to individual outlets when this space is converted to passenger seats. The letter slot supply ducting shall be routed in such a manner that no objectional bulges will be visible in the lounge area interior trim.

55-19-66	APPENDIX II COACH INTERIOR CONFIGURATION:
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The all coach configuration illustration shall be revised to incorporate triple coach seats on the right hand side.

Effect on Weight Empty:	47.0 pounds
Effect on Balance:	413,521 inch-pounds
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

Rev. 6 February 1959  
Rev. 20 January 1959

**COMMERCIAL CHANGE PROPOSAL**

SPEC NO.: ZD-30-005

DATE: 31 December 1958

CUSTOMER: American Air Lines

MCL 60,019 DTD \_\_\_\_\_

CHANGE NO: 13

MODEL: 30-5

TITLE Specification Administrative Change (Incorporation of Specification-Change RFCs)

ORIGIN As noted on RFCs.

REASON FOR CHANGE: To incorporate into Detail Specification the RFCs listed on page 1 hereof.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
None	None	None	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Incorporation of Specification-Change RFCs)

Origin: As noted on listed RFCs.

Reason for Change: To incorporate following RFCs into Detail Specification:

<del>55-1-24</del>	55-12-74	55-16-63	55-19-63
55-4-11	55-14-29	55-17-23	55-19-68
55-8-18	55-16-52	55-17-32	55-19-83
55-12-67	55-16-55	<del>55-17-38</del>	55-19-86
55-12-71	55-16-57	55-17-40	55-19-102
		55-17-41	

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
<del>6</del>	<del>55-1-24</del>	<del>3.1.2.2 TYPICAL LOADING SUMMARY:</del>
		<del>Revise items in Fixed Useful Load as follows:</del>
		<del>Fixed Useful Load (Standard Configuration</del>
		<del>6,297 lb</del>
		<del>Cabin Attendants (4) 520</del>
		<del>Crew Baggage 155</del>
		<del>Flight Deck Equipment 75</del>
		<del>Passenger Service 2,463</del>
		<del>Oxygen Bottles (3) 140</del>
		<del>Pre-Loaded Baggage Bins (6) 240</del>

12 55-4-11 Add new paragraphs:

#### 3.4.7 GENERAL DESIGN CONSIDERATIONS:

3.4.7.1 BLIND FASTENERS: Blind rivets shall be limited to use only in isolated closure areas. All blind bolted attachments shall incorporate nut gang channel or anchor nuts suitably fixed to the blind structure.

3.4.7.2 ABRASION PROTECTION: In order to preclude abrasive wear of primary structure or parts whose replacement would entail other than minimum cost, wear preventive devices shall be installed. Examples of such locations

Page RFCParagraph

are fairing, shock body, and fillet attachments, contacting areas of doors in the open or closed position, attachment of leading edge assemblies, contacting surfaces of inspection panels which have movement relative to the surface to which they are attached, contacting or potentially contacting areas of control surfaces, including such as flaps, slats, spoilers, etc. In all cases, the abrasion protection shall be suitably attached to the basic structure, or in non-basic structure areas to the part of greater cost to replace, considering both parts cost and degree of access, or attached to both where cost is large. To provide adequate fixity the abrasion protection device shall not itself cause abrasion, and consideration shall be given to the use of faying surface sealant for attaching the device.

3.4.7.3 **REPLACEABLE BUSHINGS:** Structural joints involving single bolted or pinned attachments subject to intentional or unintentional rotation shall incorporate replaceable bushings, except that, at locations subject to unintentional rotation where bearing stresses are maintained at a sufficiently low level and where the future installation of bushings can be accomplished by normal machine shop tools and operations, bushings may be omitted.

3.4.7.4 **DITCHING CRITERIA:** The structure of the airplane shall be designed to meet the ditching requirements of CAR 4b.301.

3.4.7.5 **FAIL SAFE CRITERIA:** The structure of the airplane shall be designed to meet the failsafe strength requirements of CAR 4b.270(b).

3.4.7.6 **HEAT PROTECTION:** Means shall be provided to preclude any damage to wing or fuselage primary structure as may result from failure or leakage of the ice elimination system. Such means shall permit ease of removal for structural inspection and repair.

55-8-18 3.8.4.7 **STEERING CONTROL:**

Change the seventh sentence (A hold-down button....) to read:

An "ON-OFF" thumb switch shall be installed in the nose wheel steering wheel to lock out the nose wheel brakes.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
41	55-12-67	3.12.9.13.1 UNDERWING REFUELING:  Change sixth sentence to read:  Means shall be provided at each refuel adapter for grounding each refueling nozzle.
A-4		APPENDIX I-C, FUEL SYSTEM EQUIPMENT:  <u>Add:</u>  2 Jacks, Refuel Nozzle Grounding AN 3117-1
41	55-12-74	3.12.9.14.1 SUCTION DEFUELING:  Change the paragraph to read:  The four pressure refueling fittings may be used for suction defueling. With the use of ground equipment capable of maintaining 10 in. Hg suction at the four refueling fittings, the defueling rates shall be approximately 50 gpm for each main tank, (total 200 gpm per airplane) or 50 gpm per side (total 100 gpm per airplane) for the center section auxiliary tank when defueling JP-1 type fuel at 70°F temperature.
41	55-12-71	3.12.9.14.1 SUCTION DEFUELING:  Add to paragraph:  The guards for the defuel valve switches on the flight engineer's panel shall be placarded to show that they are for ground use only.
45	55-14-29	3.14.1.3 CENTER PANEL INSTRUMENTS:  Delete: Four pressure ratio indicators
45	55-14-29	3.14.1.4 FLIGHT ENGINEER'S INSTRUMENTS:  Add: Four thrust indicator
61	55-16-52	3.16.8.2.3 PEDESTAL AND OVERHEAD PANEL LIGHTING:  Add to paragraph:  Separate controls shall be provided for forward and aft pedestal panels. The forward panel light control shall be located on the forward panel.



<u>Page</u>	<u>RPC</u>	<u>Paragraph</u>
62	55-16-55	3.16.8.3.3 LIGHTING CONTROLS:  Add to paragraph:  A switch shall be installed adjacent to the pilot's check-off list for lighting control of the list. Dimming shall be provided through the overhead panel light variable transformer.
63	55-16-63	3.16.8.3.5 LAVATORY LIGHTING:  Change paragraph to read:  Each lavatory shall be provided with light fixtures to illuminate the lavatory and for use at the mirrors. Valance lights shall be controlled by an off-on switch at the cabin attendant's panels. Mirror lighting for each lavatory shall be controlled by off-on switch integral with the respective lavatory door jamb.
63	55-16-57	3.16.8.3.8 BUFFET AND COAT COMPARTMENT LIGHTING:  Change paragraph to read:  General illumination shall be provided for the buffet area including the buffet work surface with a dimming and control switch in the galley area. This lighting shall also illuminate the service entrance area adequately for night servicing. Lighting should also be provided in the coat stowage areas, installed so that coats cannot come in contact with the fixtures. Control switches should be located conveniently in the coat rack area. Lights shall be positioned so as to eliminate adverse shadow effects while attendants are in buffets area.
73	55-17-23	3.17.1.5 RADIO AND ELECTRONIC EQUIPMENT COMPARTMENT:  Add to paragraph:  A spare fuse holder for the electronic equipment fuses shall be provided in the electronic compartment.
75	55-17-32	ADD new paragraph:  3.17.2.1.3 FREQUENCY CHART HOLDER: A frequency chart holder for VHF frequencies shall be provided in the pilot compartment and located so as to be visible to the pilots.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
78	55-17-40	3.17.3.1.1 ANTENNAS:  <u>Change first sentence to read:</u>  Two flush type loop antennas shall be installed on the top surface of the fuselage.
80	55-17-41	3.17.4.3.3 ANTENNA:  <u>Change paragraph to read:</u>  Space provisions and structural provisions in accordance with dimensions shown on the attached illustration shall be made for installation of the doppler antenna in the left wing trailing edge outboard of the landing gear.
81	55-19-83	3.19.1.1.2 PILOT'S, COPILOT'S AND FLIGHT ENGINEER'S SEATS:  Following first sentence, insert new sentence:  The pilot's and copilot's seats shall be capable of recline adjustment.  Add to paragraph:  The flight engineer's seat shall be of the swivelling type and shall be track mounted so that he can position himself at his panel or to a position between the pilot and copilot within easy reach of the engine controls.
82	55-19-68	3.19.1.1.5 PASSENGER SEATS:  Following fourth sentence (Passenger seats....rapid convertibility) insert new sentence:  The seat attach rails shall extend to the forward end of the lounge on the left hand side of the airplane.
87	55-19-63	Add new paragraph:  3.19.2.7.14 LOG BOOK STOWAGE: Stowage shall be provided in the pilot compartment for the accommodation of a standard AAL log book holder, 11 inches wide, 12 inches high and 2 1/2 inches thick. The location shall be subject to mock-up approval.

<u>Page</u>	<u>REC</u>	<u>Paragraph</u>
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87	55-19-86	3.19.3.2 FLOOR COVERING:
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ADD to paragraph:

The floor covering in the passenger area shall be retained by methods which permit quick and easy replacement of covering and which do not require tools. Mechanical fasteners and metal hold-down strips and moldings shall be avoided. Consideration shall be given to the static electricity characteristics of the carpet installed. Any difference in the cost and weight of the carpet installed which results from a choice of carpet other than that specified in Appendix I-C shall be the subject of further negotiation.

91	55-19-102	3.19.5.4 INDIVIDUAL OUTLETS:
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Following: Oxygen outlets and masks shall be provided at the following locations:

Change: One at each buffet section ( for use of cabin attendants).

To: Two at the forward buffet area and two at the aft buffet area (for use of cabin attendants).

Effect on Weight Empty:	None
Effect on Balance:	None
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL Rev. 20 January 1959

SPEC NO. ZD-30-005

DATE: 24 November 1958

CUSTOMER. American Air Lines

MCL 60,018 DTD \_\_\_\_\_

CHANGE NO: 12

MODEL: 30-5

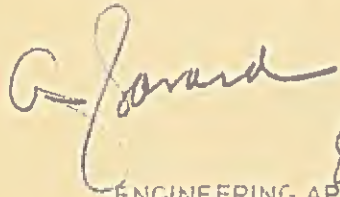

TITLE. Specification Administrative Change (Incorporation of Specification-Change RFCs).

ORIGIN As noted on RFCs.

REASON FOR CHANGE: To incorporate into Detail Specification the RFCs listed on page 1 hereof.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
None	None	None	INCH L.B.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<div style="text-align: center;">     ENGINEERING APPROVAL </div>
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LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS.	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Incorporation of Specification-Change RFCs).

Origin: As noted on listed RFCs.

Reason for Change: To incorporate the following RFCs into the Detail Specification:

55-19-33	55-19-84	55-22-2	55-APP-23
55-19-34	55-19-85	55-23-2	55-APP-25
55-19-37	55-19-89	55-23-3	55-APP-26
55-19-38	55-19-94	55-23-4	55-APP-27
55-19-45	55-19-95	55-APP-16	55-APP-29
55-19-50	55-19-98	55-APP-17	55-APP-30
55-19-64	55-20-22	55-APP-18	55-APP-32
55-19-65	55-20-27	55-APP-19	55-APP-33
55-19-76	55-20-28	55-APP-20	55-APP-34
55-19-77	55-20-36	55-APP-21	55-APP-35
55-19-78			55-APP-38
			55-GEN-9

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
81	55-19-34	3.19.1 (FURNISHINGS) GENERAL:  In first sentence change: Figure 1-2 to: page 3b.
81	55-19-84	3.19.1.1.1 SEATS:  Change first sentence to read: All seats shall be equipped with vinyl foam, or equivalent, cushions, and shall be designed, wherever practicable, in accordance with Guggenheim Foundation, NACA Crash Research and Cornell Crash Injury Research safety recommendations.
82	55-19-76	3.19.1.2 CONVERTIBILITY:  Change first sentence to read: Attachments shall be provided at five locations plus or minus five inches in the main cabin to permit substitution of one right and one left hand coat compartment assembly for one full row of seats.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
82 (Cont)	55-19-78	3.19.1.3 DESIGN DETAILS:  Add to end of paragraph:  Screws, bolts, nuts, rivets and other ordinary fasteners for attachment of interior trim, lining, equipment, partitions, etc. shall not normally be visible to the passengers. Any deviation to the above will be by specific approval of the buyer. The design of all interior appointments, particularly in the lavatories, shall incorporate rounded corners and fillets where practicable in order to facilitate cleaning of all exposed surfaces. All stowed equipment shall be restrained sufficiently to prevent its coming loose during emergency or turbulent flight conditions. All permanently attached equipment shall be restrained to resist crash load requirements.
84	55-19-50  55-19-77	3.19.2.1.3 CONTROL PANELS:  Delete from list: Service Interphone Add to list: Lavatory lighting Lounge lighting  Add to paragraph:  Two separate control panels for service interphone, public address systems, and handset shall be provided, one on the aft face of the partition forward of the forward main entrance door and one aft on inboard end of L.H. aft coat compartment.
84	55-19-37	3.19.2.2. LAVATORIES:  Change fourth sentence (A two quart capacity...) to read:  Three two-quart capacity hot water tanks, equipped with electric heating elements, shall be installed, one in each forward lavatory and one at the aft lavatories to supply hot water to each lavatory wash basin.
85	55-19-98	3.19.2.2.2 OCCUPIED SIGNS:  Add to end of paragraph:  The "Occupied" sign on the bolt shall be readable under reduced lighting conditions.

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
85	55-19-89	3.19.2.3 COAT STOWAGE:  Add to end of paragraph:  A continuous rod type of coat rod shall be installed in each coat compartment. Stowage compartments to be in upper portion of coat compartments complete with door closures.
86	55-19-95	Add new paragraph:  3.19.2.7.3.1 AIRPLANE LICENSE HOLDER:  One airplane license holder shall be provided in the flight compartment and shall be capable of holding a plastic laminated certificate.
87	55-19-94	3.19.2.7.7 CREW COAT STOWAGE:  Change paragraph to read:  Coat and hat stowage shall be provided for the flight crew.
87	55-19-64	3.19.2.7.8 MAGAZINE RACKS:  Change paragraph to read:  Magazine racks shall be provided to accommodate the following:  (Details to be furnished by AAL)
87	55-19-78	3.19.2.7.9 PLACARDS:  Add to paragraph:  "with no attachments visible to the passengers"
88	55-19-85	3.19.3.5 Change title to: CURTAINS AND SHADES:
89	55-19-45	3.19.4.1 NACELLE FIRE EXTINGUISHING SYSTEM:  Add to end of paragraph:  An overboard thermal discharge indicator (red disc) shall be so located so as to be visible during a walk-around ground inspection.



<u>Page</u>	<u>REC</u>	<u>Paragraph</u>
89	55-19-33	3.19.4.1.2 SHUTOFF VALVES:  To references at end of paragraph add: 3.16.16.
90	55-19-65	3.19.5.2 (OXYGEN) COMPONENTS:  Add to end of paragraph:  Two capped-off "Tee" connections shall be installed for checking oxygen regulator pressures. One "Tee" shall be located downstream of the pressure reducer in the crew system and the other shall be downstream of the constant flow regulator in the passenger system. Both "Tee's" are normally capped-off.
91	55-19-38	3.19.5.6 PORTABLE OXYGEN BOTTLES:  Change second sentence to read:  Three 310 liter continuous flow portable oxygen bottles shall be provided, one in the left hand forward stowage bin, one in the left hand center stowage bin, and one in the left hand aft stowage bin.
91	55-19-38	3.19.6.2 <u>Add</u> to end of paragraph: (ref. 3.7.1.5.2).
93	55-20-28	3.20.1.3.1 TEMPERATURE VARIATION:  Change first sentence to read:  During steady state conditions with no passengers aboard, and with cabin air distribution control set for all first class seating, the free air temperature in the passenger seating area shall not vary more than 5°F from maximum to minimum at arm rest level.
93	55-20-22	3.20.1.4.2 EXHAUST AIR:  Add to end of paragraph:  The air distribution system shall be designed to insure that air from the lounge area does not normally exhaust through the cabin in order to permit cigar and pipe smoking by lounge occupants without undue discomfort to occupants of adjacent cabin areas.

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
97	55-20-27	3.20.2.5 ICE DETECTOR SYSTEM:  Change last sentence to read:  This indication shall be located on the overhead panel, to indicate if either valve is not in the position called for.
98	55-20-36	Add new paragraph:  3.20.3.6 FUSELAGE LEAKAGE RATE:  The fuselage leakage rate at sea level, 32°C ambient, all lavatory and buffet vents plugged and with 8.2 psia differential pressure, shall not exceed 35 pounds per minute.
99	55-22-2	3.22.2 JACKING PROVISIONS:  After: "174,875 pounds" Add: (representing maximum load with 50 percent fuel, less passengers and crew).  Add to end of paragraph:  Jacking with two or more main gear tires flat either forward or aft, or with one tire flat such that the tire has a rolled-under condition, shall be accomplished at the provided center landing gear jack point at maximum ramp weight less the weight of passengers and crew.
100 101		3.23.2 EQUIPMENT INTERCHANGEABILITY:  a. Interchangeable Parts:  55-23-3 Add: Nacelle doors Engine tail cowl Bullet nose QEC plumbing and drain lines  55-23-2 Add: Horizontal stabilizer R.H. Horizontal stabilizer L.H. Horizontal stabilizer torque box.  55-23-4 After "Passenger seat assembly, etc.", add: (except for seat assemblies adjacent to emergency exits).



Page RFC

Paragraph

55-23-2      Delete:    \*Horizontal stabilizer, complete assembly  
                            Sealing blades, stabilizer to fuselage  
                            \*Note at bottom of page.

b. Replaceable parts:

55-23-2            Add:       Sealing blades, stabilizer to fuselage

55-23-3 Delete: Nacelle doors

A-1 55-APP-34 APPENDIX I-A: Pages A-1(1) and A-1(2)

Applicable only to first 24 copies of ZD-30-005 Preliminary -

In title, change "Buyer Installed" to "Convair Installed"

A-3 55-APP-35 APPENDIX I-C Delete all weights on page

A-7 APPENDIX I-C FLIGHT INSTRUMENTS:

55-APP-23 Under: Valve normal and alternate static select  
Change: Republic Mfg. 5-1357-2  
To: Kohler K4566

55-APP-29 Change: Two transmitter, flap position, Type 8TJ39,  
General Electric  
To: Two transmitter, flap position, US Gauge

55-APP-30 Change: 2 Indicator, rate of climb, Type 1648, Specialties  
To: 2 Indicator, rate of climb, Specialties SLZ 9039

Add: Clock part number Wakmann 618-12-24-10

55-APP-33 Change: 1 Compass, Magnetic, Kollsman T50-C-7B  
To: 1 Compass, Magnetic, U.S. Gauge C-5A

55-APP-38 After: 2 sets, Indicator light, marker beacon, Korry  
Change: "Part of Spec. No." to read:  
130-4 SHCP (White)  
130-4 SHAP (Amber)  
130-4 SHLBP (Blue)

A-11 55-APP-25 APPENDIX I-C

## ENGINE INSTRUMENTS - OIL SYSTEM

Delete part numbers of Simmonds items.

55-APP-25 AUTO PILOT (BENDIX)

Delete: 1 Vertical sensor, dynamic

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
A-12		APPENDIX I-C
	55-APP-16	INSTRUMENTS, HYDRAULIC AND PNEUMATIC:  Change: 3 Indicator, hydraulic pressure, U.S. Gauge, Type SR-07 To: 2 Indicator, hydraulic pressure, U.S. Gauge, Type SR-07B  To: Indicator, hydraulic fluid quantity, add manufacturer's name: Simmonds  Change: Indicator, emerg. air brake press., Lindsay To: Indicator, emerg. air brake press., Rochester 6905-705  To: Indicator, Brake Hydr. Pressure, U.S. Gauge add part number: SR-07C.
	55-APP-20	INSTRUMENTS, PRESSURIZATION ETC.  Delete: 1 Indicator, cabin altitude and diff. pressure. Add: 1 Indicator, cabin altitude, Kollsman (71CPX-10-03 1 Indicator, cabin diff. pressure, Kollsman 254EK-10-0104  Add part numbers: Indic., Supercharger air flow, Ham-Std., 537325 Indic., Supercharger bearing temp., Ham-STD, 52773
A-13	55-APP-35	APPENDIX I-C, Delete all weights on page.
A-13	55-APP-21	APPENDIX I-C, ELECTRICAL POWER EQUIPMENT:  Delete (redundant): 1 175 VA Static inverter power pack.
A-17	55-APP-35	APPENDIX I-C, Delete all weights on page.
A-18	55-APP-35	APPENDIX I-C, Delete all weights on page.
A-19	55-APP-35	APPENDIX I-C, Delete all weights on page.
A-20	55-APP-32	APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT:  Change: 3 Press. transmitter, Bendix-Montrose 1481149-1 To: 3 Press. transmitter, U.S. Gauge.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
A-21	55-APP-35	APPENDIX I-C, Delete all weights on page.
A-24		APPENDIX I-C, FURNISHINGS:
	55-APP-27	Delete: 88 Integral folding food trays
	55-APP-35	Delete all weights on page which are not useful load items.
A-25	55-APP-19	APPENDIX I-C, FURNISHING UNIT WEIGHTS:
		Add: Pilot compartment floor covering, 32.5 oz/sq. yd.
		Change: 100 Window antiglare panels, 91 lb.
		To: 96 Window antiglare panels, 115 lb.
A-26	55-APP-17	APPENDIX I-C, OXYGEN
		Delete: 2 regulators, (Passenger, Cont. flow)
		2 Valve, reducing, oxygen
		AR Check valve, tee, Style B
		AR Check valve, tee, Style D
		Add: 1 Pressure reducer, oxygen, Alar 5753
		2 Valve, oxygen, auto opening (continuous flow regulator with pressure reducer)
		Alar 5870-100
A-27	55-APP-18	APPENDIX I-C FIRE EXTINGUISHING EQUIPMENT:
		Bottle, portable, water.
		Change part no. from 5-890017 to 5-890275
		Check tee, fire extinguisher
		Change manufacturer's name and part number from
		Accessory Products 202200 to Walter Kidde 891050.
		Bottle, fire extinguishing, (6 1/2 lb)
		Add part No: 891154.
A-28	55-APP-26	APPENDIX I-D
		Change weight of thrust reversers from 1200 lb to 1400 lb.

Substitute the words "pilot compartment" for the expressions noted in the paragraphs listed below.  
(Ref. RPC 55-GEN-9):

<u>Page</u>	<u>Paragraph</u>	
12	3.4.3	flight deck
12	3.4.4	flight compartment
17	3.7.1.3.1	<b>FLIGHT COMPARTMENT</b>
17	3.7.1.3.1	flight compartment
23	3.8.1.5	flight compartment
27	3.10.1.2	flight deck
39	3.12.9.7.5	pilots' compartment
41	3.12.9.15	pilots' compartment
42	3.12.11.2.1	cockpit
53	3.16.2.4.1	pilots' compartment
62	3.16.8.2.8	pilots' compartment (2 places)
62	3.16.8.3.3	pilots' compartment
67	3.16.11.3	pilots' compartment (2 places)
67	3.16.11.4	pilots' compartment
67	3.16.11.4.2	pilots' compartment
74	3.17.1.7.1	Pilots' compartment (2 places)
75	3.17.2.3.3	<b>FLIGHT DECK</b>
75	3.17.2.3.3	pilots' compartment (2 places)
76	3.17.2.3.4	Flight deck (2 places)
76	3.17.2.3.4	flight compartment
76	3.17.2.3.4	<b>PILOT'S COMPARTMENT</b>
77	3.17.2.3.5	Pilot's compartment
77	3.17.2.3.6	pilot's compartment
91	3.19.6.2	flight deck
92	3.20.1.2	pilots' compartment
95	3.20.1.9.1	<b>PILOTS' COMPARTMENT</b>
95	3.20.1.9.1	pilots' compartment
95	3.20.1.10	pilots' compartment (2 places)
96	3.20.2.4	flight deck
97	3.20.2.5	pilots' compartment
97	3.20.3.3	flight deck (3 places)

Effect on Weight Empty: None  
Effect on Balance: None  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

DATE: 21 November 1958

CUSTOMER: American Air Lines

MCL 60,017 DTD \_\_\_\_\_

CHANGE NO: 11

MODEL: 30-5

TITLE: Specification Administration Change (Incorporation of Specification-Change RFCs).

ORIGIN: As noted on RFCs.

REASON FOR CHANGE: To incorporate into Detail Specification the RFCs listed on page 1 hereof.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	None INCH LB.
None	None	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Incorporation of Specification-Change RFCs)

Origin: As noted on listed RFCs

Reason for Change: To incorporate the following RFCs into the Detail Specification:

55-12-76	55-15-7	55-16-50
55-14-12	55-15-8	55-16-56
55-14-16	55-16-34	55-16-59
55-14-21	55-16-36	55-16-61
55-14-25	55-16-37	55-17-30
55-15-3	55-16-43	55-17-34
55-15-6		

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
-------------	------------	------------------

44	55-14-12	3.14.1 INSTRUMENTS:
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In second sentence:

Change: Pilot, copilot and engine instrument....

To: Pilot's, copilot's and center instrument....

44	55-14-21	3.14.1.1 PILOT'S INSTRUMENTS:
----	----------	-------------------------------

Delete: One stabilizer position indicator

45	55-14-21	3.14.1.3 CENTER PANEL INSTRUMENTS:
----	----------	------------------------------------

Add: One longitudinal trim indicator

45	55-12-76	3.14.1.4 FLIGHT ENGINEER'S INSTRUMENTS:
----	----------	---

Change: Four fuel quantity indicators

To: Five fuel quantity indicators

46	55-14-16	3.14.1.5 MISCELLANEOUS INSTRUMENTS:
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Delete: Two oxygen quantity gages  
Three oxygen flow indicators.

49	55-14-25	Add new paragraph:
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3.14.5 RAM AIR TEMPERATURE SYSTEM: The accuracy of the installed ram air temperature system shall be  $\pm 5^{\circ}\text{C}$ .



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
50	55-15-8	3.15.1.1 (HYDRAULIC SYSTEM) DESCRIPTION AND COMPONENTS:  Change paragraph to read:  Two separate hydraulic systems, powered by engine driven pumps, shall be provided. One system shall actuate the spoilers, flaps, leading edge devices, rudder boost, fuel jettison-booster pumps, fuel scavenge pumps, horizontal stabilizer adjustments, nose landing gear, nose gear steering and nose wheel brakes. The other system shall actuate the spoilers, flaps, leading edge devices, starting system air compressor, fuel jettison-booster pumps, main landing gear, and main wheel brakes. An electrically driven AC auxiliary pump shall be provided to supply both systems. The systems shall be of the 3000 psi closed center type, continuously operating, powered by variable delivery pumps and shall operate throughout the operating temperature and altitude range of the airplane.
50	55-15-7	3.15.1.4 LINES:  Change first sentence to read: Pressure lines shall be stainless steel conforming to MIL-T-6845 or MIL-T-8504 or shall be flexible hose.
50	55-15-6	3.15.1.6 EMERGENCY SHUTOFF VALVES:  Change first sentence to read: Hydraulic fluid emergency shutoff valves shall be provided.
51	55-15-3	3.15.3.1 (PNEUMATIC) DESCRIPTION AND COMPONENTS:  At end of last sentence add: "and 3.7.1.3.2.2.
53	55-16-37	3.16.2.2 DIRECT CURRENT:  Change first sentence to read: Four 50 ampere unregulated transformer rectifiers shall be installed for the required 28 volt direct current loads.
53	55-16-37	3.16.2.3. BATTERIES:  In first sentence, change: 24 volt to: 27.5 volt

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
53	55-16-37	3.16.2.4.1 POWER TRANSFER:  In last sentence, delete: 175 VA
53	55-16-37	3.16.2.4.2 BATTERY COMPARTMENT FINISH:  Delete: sealed from the adjoining structure and ventilated to the exterior of the airplane.
54	55-16-43	3.16.4 EQUIPMENT INSTALLATION:  From last sentence, delete: As a design objective.
62	55-16-36	3.16.8.3.4 READING LIGHTS:  From fourth sentence (The "ON-OFF" switch....) delete: and placarded to clearly indicate its function.
63	55-16-59	3.16.8.3.7 ENTRANCE AREA LIGHTING:  Add to end of paragraph: The lighting shall be controlled by an ON-OFF switch at the cabin attendants' forward panel.
63	55-16-50	3.16.8.3.8 BUFFET AND COAT COMPARTMENT LIGHTING:  Insert after first sentence: This lighting shall be suitable for all normal usage of buffet and general area.
66	55-16-50	3.16.10.9 MAINTENANCE RECEPTACLES:  Delete last sentence: (This receptacle shall be ground operation).  Add to end of paragraph: One 7.5 ampere, 115 volt, 400 cycle service receptacle shall be provided in the electronic rack area.
66	55-16-34	3.16.11.1 LANDING GEAR AND STABILIZER WARNING HORN:  Change first and second sub-paragraphs to read:  With aircraft airborne the horn will operate if any one of the landing gear units is not fully extended and locked when any power lever is retarded below 25% engine power or the flaps are in the range of approach to land.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
		When the aircraft is ground borne, the horn will operate if the landing gear override lever is moved.
		In last subparagraph, after "operate", insert "intermittently".
67	55-16-61	3.16.11.4.1 PASSENGER CALL SWITCHES:  Add to end of paragraph: The call switches shall be so placarded that the placard can be easily read with the reading lights on.
69	55-17-34	3.17.1.1 CONTROL PANELS:  Change: ATC Transponder Beacon Control (Dual) To: ATC Transponder Beacon Control.
78	55-17-30	3.17.3.2 MARKER BEACON RECEIVER:  Change last sentence to read: Controls for the marker beacon shall be located on a forward pedestal panel.
A-9	55-12-76	APPENDIX I-C, ENGINE INSTRUMENTS - FUEL SYSTEM:  Add to list:  1 Indicator, Fuel Quantity Counter - Pointer Type Center Section Tank Simmonds

Effect on Weight Empty: None  
Effect on Balance: None  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-30-005

Rev. 20 January 1959  
DATE: 30 November 1958

CUSTOMER: American Air Lines

MCL 60,016 DTD \_\_\_\_\_

CHANGE NO: 10

MODEL: 30-5

TITLE: Specification Administrative Change (Incorporation of Specification-Change RFCs).

ORIGIN: As noted on RFCs.

REASON FOR CHANGE: To incorporate into Detail Specification the RFCs listed on page 1 hereof.

### EFFECT ON WEIGHT \*

GUAR. WT. EMPTY

None

OPER. WT. EMPTY

None

### EFFECT ON BALANCE \*

None

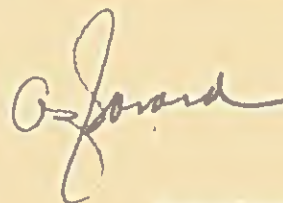
INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE.

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Incorporation of Specification-Change RFCs).

Origin: As noted on listed RFCs.

Reason for Change: To incorporate the following RFCs into the Detail Specification:

55-5-10	55-11-9	55-12-55	55-12-72
55-10-11	55-12-37	55-12-56	55-12-73
55-10-12	55-12-40	55-12-57	55-12-75
55-10-13	55-12-41	55-12-58	55-12-78
55-10-15	55-12-42	55-12-59	55-12-79
55-10-16	55-12-43	55-12-60	55-12-80
55-10-17	55-12-44	55-12-61	55-12-81
55-11-4	55-12-49	55-12-66	55-12-88
55-11-5	55-12-50	55-12-68	55-12-89
55-11-7	55-12-52	55-12-69	55-12-90
55-11-8	55-12-54	55-12-70	55-12-91

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
27		3.10.1.1.1 CABLES, FITTINGS AND CONNECTIONS:
	55-10-11	In first sentence delete: "or galvanized steel"
	55-10-15	Add to end of paragraph:  Nonflex (1 x 19) cable shall be used where desirable to provide rigidity in cable control systems. In case where nonflex cable and standard flex cable form an assembly, the direction of lay of both types of cable shall be the same. This is required to prevent cable unravelling during application of load.
27	55-10-12	3.10.1.2 AILERON SYSTEM:  Change second sentence to read:  In flight the ailerons shall be aerodynamically actuated by the action of the aileron flight tabs which shall be operated by a separate cable system from each control wheel; however, the control mechanism shall be so designed that, with the airplane on the ground, the full throw of the control wheel will mechanically produce full aileron movement.

<u>Page</u>	<u>REC</u>	<u>Paragraph</u>
27	55-10-12	3.10.1.3 RUDDER SYSTEM:  Change second and third sentences to read:  Rudder actuation shall be provided by the cable-operated flight tab plus a hydraulic boost system powered from a single hydraulic system. The power boost system shall be active only when approximately 50 percent or more of maximum rudder deflection is required.
28		3.10.1.4 ELEVATOR SYSTEM:
	55-10-13	In second sentence, change: operate tabs to : operate flight tabs
	55-10-16	Add to end of paragraph:  The control mechanism shall be so designed that the full travel of the control column will produce full elevator and flight tab travel with the airplane on the ground.
28		3.10.2.1 LIFT AND DRAG INCREASING DEVICE SYSTEMS:
	55-10-13	In seventh sentence (A monitoring system ..... mechanical failure), change: asymmetrical flap positioning to: asymmetrical positioning.
	55-10-17	Following seventh sentence, insert:  The limit of flap and slat asymmetry controlled by the monitor shall be held to a practical minimum.
30	55-11-7	Add new paragraph:  3.11.5.3 GROUND FIRE EXTINGUISHER PROVISIONS: Cowl side panels shall have "push-in" fire extinguisher doors.
31	55-11-4	3.11.6 ENGINE COMPARTMENT WIRING:  Change paragraph to read:  As a design objective electrical wiring shall be installed above fluid-carrying lines or be isolated therefrom. All fluid-carrying lines or electric leads shall enter pods through steel fittings. Holes for fluid-carrying lines and electric leads passing through any fire seal shall be sealed against passage of fire.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
31	55-11-9	3.11.8 INSPECTION AND MAINTENANCE:  In second sentence (The engine shall ... replacement;  Change: strut To: pylon.
31		3.11.9 DRAIN LINES:
	55-11-8	Extend sixth sentence to read:  The drain lines shall drain in all normal ground and flight attitudes and fluids drained shall not impinge upon or reenter any part of the airplane.
	55-11-5	Delete last two sentences and substitute:  A container shall be installed to collect fuel drained at engine shut down. It shall be self-evacuating during take-off and shall have ground draining provisions.
32	55-12-41	3.12.1 GENERAL DESCRIPTION AND COMPONENTS:  In first sentence change: aft turbojet fan to: aft fan turbojet.
32		3.12.1.1 LINES AND FITTINGS:
	55-12-41	In first sentence delete: carrying flammable fluids.
	55-12-52	Change subparagraph "a." to read:  Lines and fittings which are subject to relative motion between components shall be flexible fireproof lines with fireproof end fittings for all line sizes $\frac{3}{4}$ inch diameter and under. End fittings for larger sizes can be of aluminum alloy. All flexible lines shall have reusable end fittings.
33	55-12-61	3.12.4.1 HYDRAULIC SYSTEM PUMPS:  Add to end of paragraph: (Ref. 3.15.1.9)

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
34	55-12-55	Add new paragraph:  3.12.4.4 ENGINE EQUIPMENT: Cockpit instrumentation and/or controls shall be provided for the following engine equipment:  Engine Fuel Shutoff Control Engine Power Control Reverse Thrust Control Engine Tachometer Generator Aft Fan Speed Signal Generator Ignition Exhaust Gas Thermocouples Engine Air Inlet Anti-Icing Aft Fan Anti-Icing Engine Fuel Heater CSD Disconnect CSD Thermo Switch (Malfunction Detector) Reverse Thrust Position Indication Engine Oil Pressure Transmitter Engine Oil Temperature Bulb Engine Oil Low Pressure Warning Unit Engine Oil Quantity Transmitter Fuel Flowmeter Engine Fuel Pump Pressure Drop Vortex Destroyer Shutoff Valve Starter and Shutoff Valve In-line Combustor (#2 and #3 engines only) Engine Thrust Measuring Unit Ice Warning Detector
34	55-12-60	3.12.5 AIR INDUCTION SYSTEM:  Extend second sentence to read:  Air inlet ducts for the fan shall be extended to the compressor air duct with sufficient access for repair of the ducts and the pod structures.
34	55-12-43	3.12.5.1 AIR INLET ANTI-ICING:  Extend third sentence to read:  It shall be possible to to anti-ice the common engine air inlet duct lip from the airplane bleed manifold system on engines which have been shut down.  Delete fourth sentence: (The inner engine .... bleed manifold).



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
34		3.12.6 REVERSE THRUST:
	55-12-42	Following fourth sentence (Means shall .... desired position), insert: Reverse position indication shall be provided.
	55-12-89	Change last sentence to read:  Failure of the thrust reverser shall not decrease available forward thrust on that engine by more than 25 percent.
35	55-12-59	3.12.7 COOLING SYSTEM:  Change paragraph to read:  Air flow ventilation of the compressor/accessory compartments and burner/turbine compartments shall be provided.
35	55-12-57	3.12.8.4 TANKS:  Delete last sentence: (The oil cooler ... of hail).
35	55-12-37	3.12.9.1 (FUEL SYSTEM) DESCRIPTION:  Change second sentence (The wing ... replenishing system) to read:  The wing shall incorporate four outboard fuel tank systems and one center section auxiliary system, each of the four outboard tank systems being divided into three parts consisting of main, replenishing and anti-shock-body compartments.
36	55-12-80	3.12.9.2 BOOST PUMPS:  Add to end of paragraph:  The auxiliary center section tanks shall contain two hydraulic motor driven dual purpose fuel pumps. Either pump shall be capable of supplying the four engine demand at cruise power with sufficient pressure to override the main tank booster pumps. These pumps shall also be used as jettison pumps in an emergency. (Ref. 3.12.9.10.1)

<u>Page</u>	<u>HFC</u>	<u>Paragraph</u>
37	55-5-10	3.12.9.3.1 WING CENTER SECTION FUEL SYSTEM:  Change first sentence to read:  A five-bay auxiliary fuel system, consisting of fuel-tight cells, shall be installed in the wing center section.
37	55-12-79	3.12.9.5.1 VENT SYSTEM OPERATING LIMITS:  Change last sentence to read:  These limits shall also not be exceeded during maximum rate of climb with +130°F initial fuel temperature.
38	55-12-78	3.12.9.6 PIPING AND FITTINGS:  Change first sentence to read:  Fuel lines external to the fuel tanks shall be stainless steel tubing except that lines in the nacelle may be fireproof, fatigue and abrasion resistant flexible hose at the pylon-wing connection or where relative motion exists.
38	55-12-72	3.12.9.7.1 (VALVES) GENERAL:  Add to paragraph:  Each electric motor shall be replaceable without moving its respective valve from the line and without fuel leakage. It shall be possible to replace a valve slide plate and seals without draining fuel from the tanks. A fuel valve shaft position indication system shall be provided for all electrically operated fuel system valves. It shall also be possible to operate manually the valves with the electrical motor section removed.
38	55-12-72	3.12.9.7.2 LINE SHUTOFF VALVES:  Delete third, fourth, fifth and sixth sentences:  The electric motor .... motor section removed.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
39	55-12-81	3.12.9.7.7 LEVELING SHUTOFF VALVES:  Add to paragraph:  A primary and secondary pilot and shutoff valve system shall be provided.
39	55-12-54	3.12.9.9.1 QUANTITY GAUGES:  Change fourth sentence to read:  One measurement system shall be provided for each fuel tank system with provisions to gauge total or main or replenish or anti-shock body quantities where applicable.
40	55-12-54	3.12.9.9.2 AUXILIARY FUEL GAUGES:  Add to paragraph:  A center section fuel quantity indicator shall be included on each refueling panel.
40	55-12-44	3.12.9.10.1 (FUEL JETTISON) DESCRIPTION:  Change first sentence to read:  A fuel jettison system shall be provided to permit fuel to be jettisoned through the aft end of each outboard anti-shock body; the system shall be controlled from the pilot compartment.  Change last sentence to read:  The aft end of each anti-shock body affected shall contain drainage provisions so that any leakage in the lines or fittings between rear spar and jettisoning nozzle shall drain overboard.
40) 41)	55-12-69 55-12-70 55-12-90 55-12-91	3.12.9.13.1 UNDERWING REFUELING:  Change paragraph to read:  Four fueling adapters shall be provided for the tank systems. Two adapters on each side of the



Page    RFCParagraph

40)

41)

## 3.12.9.13.1 UNDERWING REFUELING (Cont)

airplane shall be located approximately 30 inches apart at a position on the underwing surface approximately midway between the wing tip and the outboard side of the outboard pod. The refueling system for each side of the airplane shall be designed so that, with fuel flowing to all tanks and a maximum pressure of 35 psi maintained at the inlet to both adapters, the total refueling rate shall be 600 gpm. The fuel vent system shall be capable of handling overflow of fuel with the airplane refueling adapter pressure from 35 psi to 50 psi without damage to the wing structure. The fueling system control shall be energized from the external power source without energizing the airplane electrical power system. Switches shall be provided to illuminate the refueling panel and to operate the pre-check system. Suitable means shall be provided for connecting a ground wire from the fueling truck. The adapters shall be in accordance with Specification MIL-A-7898, Type A-5 or an adaptation of this type. The standard nozzle adaptation shall be retained. The refueling system shall be designed for 60 psig normal operating pressure, 120 psig proof and maximum surge pressures, and 180 psig burst pressure. Total refueling time from start of fuel flow to maximum capacity shall not exceed 10 minutes for main tanks full or 12 minutes for all tanks full when the fueling operation is based on the following conditions:

- a. Fueling pressure at adapter is 35 psi.
- b. Fuel dispensing equipment is rated to dispense 300 gpm/hose at adapter pressure of 35 psi.
- c. 2000 gallons of reserve fuel are on board the airplane at start of the fueling operation, distributed equally among the main tanks.

41

55-12-66

## 3.12.9.13.3 REFUELING CONTROLS:

Change paragraph to read:

A refueling panel shall be located in the trailing edge of the wing on each side of the airplane. The panels shall contain fuel quantity gauges, pre-set automatic, manual, pre-check shutoff controls and jacks for service interphone system. Means shall be provided to automatically shutoff the fuel to each tank when either full or pre-set level is reached.



<u>Page</u>	<u>REC</u>	<u>Paragraph</u>
41	55-12-73	3.12.9.14.1 SUCTION DEFUELING:  In first sentence delete: "inboard"
41) 42)	55-12-68	3.12.11.1 (PROPULSION SYSTEM CONTROLS) DESCRIPTION AND COMPONENTS:  Change last sentence to read:  As a design objective all engine controls shall be installed in such a manner as to prevent creepage of any control due to structural deflections which result from ordinary loads or movements due to vibrations of the airplane.
	55-12-88	Add to end of paragraph:  Rigging provisions shall be installed to permit indexing of the cockpit control levers with the controls they actuate at the engines.
42	55-12-75	3.12.11.2 GENERAL CONTROLS:  Change last sentence and list of controls to read:  The following propulsion system controls (manual or electrical) shall be provided:  Engine starter (see 3.12.12) Engine emergency shutdown (see 3.12.13) Engine power, including reverse thrust Fire extinguishing (see 3.19.4.1.1) Engine anti-icing (see 3.12.5.1 and 3.20.2.1) Fuel pumps (see 3.12.9.2 and 3.12.9.2.1) Fuel tank cross-feed (see 3.12.9.3.2) Fuel tank shutoff (see 3.12.9.7.2) Fuel jettison (see 3.12.9.10.1) Fuel shutoff (see 3.12.11.2.1)
43	55-12-58	3.12.12 STARTING SYSTEM:  In last sentence,  change: The ignition shall be automatically energized to:       ... The ignition shall be automatically armed ...

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
43		3.12.12 STARTING SYSTEM (Cont)
	55-12-40	Change second sentence to read:  A low pressure ground starting connection shall be installed.
43	55-12-50 55-12-49	3.12.12.1 IN-LINE COMBUSTOR STARTING SYSTEM:  Change paragraph to read:  An in-line combustor shall be installed in #2 and #3 pods with required ducting, plumbing and controls. An air supply system shall be provided which shall be capable of two starts, via the in-line combustors. High pressure (3000 psi) air storage bottles and a high pressure ground connection shall be provided. The ground connection when connected to a high pressure ground source of air shall supply air to either inboard engine for one start or, by selection, supply air to the storage bottles for recharging. The air storage bottles shall not be utilized when starting from the ground source. Air storage shall be divided into two equal portions, each portion containing regulation and control such that each portion may be charged consecutively, and that each portion shall supply air for starting separately, consecutively or simultaneously through control from the cockpit. Control switches shall be installed to permit starting from the pilot compartment. A remote reading high pressure air gauge for each portion of the air supply system shall be located at the flight engineer's station. Lines, fittings and valves utilized in the starting system for starting an inboard engine from a ground source of air shall be sized for the flow rate required to start one engine with a residual ground source pressure of 500 psia at the A/C ground connection.
43	55-12-56	Add new paragraph:  3.12.14 THRUST INDICATION SYSTEM: A thrust indication system shall be provided for each engine.



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>		
45	55-12-56	3.14.1.3	CENTER PANEL INSTRUMENTS:	
		Change:	Four pressure ratio indicators	
		To:	Four thrust indicators	
A-9	55-12-56	APPENDIX I-C,	ENGINE INSTRUMENTS - GENERAL	
		Change:	4 Indicator, Pressure Ratio	Kollsman B29187-10-001
			4 Transmitter, Pressure Ratio	Kollsman A31351-00-025
		To:	4 Indicator, Thrust	
			4 Units, Thrust Measuring	

Effect on Weight Empty: None  
Effect on Balance: None  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL Rev. 20 January 1959

SPEC NO.: ZD- 30-005

DATE: 18 November 1958

CUSTOMER: American Air Lines

MCL 60,015 DTD \_\_\_\_\_

CHANGE NO: 9

MODEL. 30-5

**TITLE:** Specification Administrative Change (Incorporation of Specification-Change RFCs).

**ORIGIN:** As noted on RFCs.

**REASON FOR CHANGE:** To incorporate into Detail Specification the RFCs listed on page 1 hereof.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

None

None

None

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*[Signature]*

*[Signature]*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Incorporation of Specification-Change RFCs).

Origin: As noted on listed RFCs.

Reason for Change: To incorporate following RFCs into Detail Specification.

55-1-10	55-5-9	55-7-14
55-1-11	55-5-12	55-8-9
55-1-16	55-6-3	55-8-12
55-1-19	55-6-4	55-8-14
55-1-21	55-6-5	55-8-15
55-4-9	55-7-7	55-8-17
55-4-10	55-7-8	55-8-20
55-5-7	55-7-11	55-8-24
55-5-8		

Description of Change:

<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
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1	55-1-16	1.3.2 Change paragraph to read:
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MINOR CHANGES: Convair may, without change order or Buyer's consent, make minor changes and corrections in the detail specification in order to correct defects or improve the aircraft; provided that such changes and corrections shall not adversely affect price, time of delivery, functional character or performance of any aircraft to be purchased hereunder or the interchangeability or replaceability of parts therefore, nor appreciably affect the design, maintenance and service characteristics, weight, or balance or any such aircraft; and provided, further, that Convair promptly shall give written notice to Buyer or Buyer's factory representative detailing such change and corrections and other effect, if any, upon any and all of the matters enumerated in this paragraph.

2	55-1-10	2.1.1 Change title and paragraph to read:
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APPLICABLE DATE OF MILITARY SPECIFICATIONS: The applicable issues of Military Specifications referred to in this Detail Specification, unless otherwise specified herein, shall be of the issue in effect on 1 April 1958. Such specifications will be used only for design guide purposes unless otherwise specifically stipulated herein.

2	55-1-19	2.1. APPLICABLE FEDERAL REGULATIONS Add: 4b-9 adopted 27 August 1958.
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<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
8	55-1-21	3.1.3.3 DIMENSIONS AND DATA: (BODY):  Change: Length 135 ft. 5.0 in. To: Length 134 ft. 9 in.  Change: Height (over fin) 39 ft 4.9 in. To: Height (over fin) 39 ft 6.1 in.
9	55-1-11	3.2.2 MATERIALS:  Add to end of paragraph: Sheet magnesium alloy shall not be used in primary or secondary structure.
12	55-4-9	3.4.3 FATIGUE:  Change paragraph to read: Protection against structural fatigue shall be a foremost consideration throughout the design. Proper attention shall be given to stress levels, provision for adequate radii, proper surface finish, corrosion protection, and minimum discontinuities not only in design but also in production practices, in an effort to provide structure with long service life.
12	55-4-10	3.4.6 Change title and paragraph to read:  HINGE PINS - CONTROL SURFACE ATTACHMENT: The design and number of control surface hinges or other attachment for the ailerons, elevators, rudder, tabs, spoilers and flaps shall be such that failure or loss of one hinge or other attachment in normal operation will not preclude ability to continue flight safely to a reasonable destination.
13	55-5-8	3.5.2.1 STRUCTURE:  Delete last two sentences: To preclude wear....motion exists. The wear strips...primary structure.
13	55-5-7	3.5.2.3 FUEL TANKS:  Change paragraph to read:  The wing shall incorporate integral fuel tankage in the interspar area outboard of the fuselage (ref. 3.12.9.1). Enclosed areas surrounding fuel tank sections shall be adequately ventilated and drained. The integral fuel tanks shall be accessible through openings in the lower wing surface and through crawlways located in the wing ribs. All sealed internal joints shall be accessible for inspection and repair. The wing center section shall incorporate a fuel-tight compartment for the accommodation of the center-section fuel cells. The compartment shall be provided with openings to permit access to the cells from the main wheel well for purposes of repair, maintenance or removal. Provisions for draining and venting the compartment shall be made



<u>Page</u>	<u>RFC</u>	<u>Paragraph</u>
14	55-5-9	3.5.2.7 TRAILING EDGE:  Delete last sentence: Wear strips....flap areas.
14	55-5-12	3.5.3 AILERONS:  Add to end of paragraph: A flight tab shall be provided on each aileron to assist the pilots' control. The flight tab shall be mass balanced and so designed as to minimize the effect of snow and ice accumulation on tab effectivity and pilot control forces.
16	55-6-4	3.6.2 STABILIZER:  Change paragraph to read: The horizontal stabilizer shall be adjustable to provide longitudinal trim. The horizontal surface shall be of full cantilever aluminum alloy construction, except the leading edges which shall be constructed for electrical de-icing. The tips shall be removable. The left and right hand stabilizers shall be removable from the stabilizer center section. The stabilizer actuating structure, stabilizer attachment, and carry through structure shall be fail-safe.
16	55-6-3	3.6.3 ELEVATORS:  Change last sentence (the flight tabs...physical limits) to read:  The flight tabs shall be mass balanced and so designed as to minimize the effect of snow and ice accumulation on tab effectivity and pilot control forces.
16	55-6-5	3.6.5 RUDDER:  Change last sentence (The flight tab and the rudder shall be mass balanced) to read:  The flight tab shall be mass balanced and so designed as to minimize the effect of snow and ice accumulation on tab effectivity and pilot control forces.
17	55-7-7	3.7.1.2 CONSTRUCTION:  Following the third sentence (These lap joints shall be arranged with the lap downward) insert:  Skin splices in the area of the toilet drains or subjected to corrosive leakage from the drains shall be bead sealed to prevent entry of toilet drain leakage from outside the airplane into the faying surfaces. Such bead sealing will be required on skin splices located three (3) feet either side of and for a distance of ten (10) feet aft of the lavatory drain.



Page	RFC	Paragraph
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18	55-7-8	3.7.1.3.2 PILOT'S ENCLOSURE:
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Change second sentence to read: The three forward windshield panels and the movable side windshield panels shall also be designed for impact resistance.

20	55-7-11	3.7.1.6.4 LAVATORY AND BUFFET FLOORING:
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Change paragraph to read:

Floor areas of all lavatories and buffet sections (including approximately 12 inches around each buffet) shall be sealed to prevent liquids from seeping through the flooring. The top surface of floor panels in buffet, lavatory and entrance areas shall be specially treated with a corrosion inhibiting compound. Non-structural, non-metallic pans shall be installed beneath lavatory paneling and buffet areas.

21	55-7-14	3.7.1.6.5 CARGO COMPARTMENT FLOOR:
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Add to paragraph: Cargo compartment floors shall consist of that area extending laterally from the fuselage center line for a distance of 43 inches on the left hand side and 52.5 inches on the right hand side. Lengthwise the floors shall extend for the full length of both compartments.

22	55-8-15	3.8.1 GENERAL DESCRIPTION AND COMPONENTS:
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Add to paragraph:

A TGP-9385 plug assembly shall be provided for connecting a ground wire from a refueling truck to each main gear shock strut.

22	55-8-14	3.8.1.1 EMERGENCY EXTENSION:
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Change paragraph to read:

In the event of failure of the normal system the landing gear doors shall be opened by means of a separate air pressure source actuated by a mechanical emergency release, which also releases the gear uplock mechanism and causes the landing gear to fall and lock in the "down" position. In the event of an air pressure source malfunction, the mechanical emergency release shall release the door uplatch and gear uplatches and permit the gear to force the doors open and the gear to fall and lock in the "down" position. The mechanism shall be so designed that after an emergency drop for test purposes without an actual malfunction it will be possible to retract the gear and doors in flight.



Page	RFC	Paragraph
23	55-8-20	3.8.1.4 WARNING SYSTEM:  Change third sentence (A red light with....intermediate position) to read:  A dual lamp light assembly shall be provided to indicate when the landing gear doors are not fully closed and locked.
24	55-8-12	3.8.2.2 WHEELS, BRAKES AND BRAKE CONTROL SYSTEMS  Change: Type VII, H.P. 41 x 14.5-16 Tire and Rim To: Type VIII, H.P. 41 x 15-18 Tire and Rim
24	55-8-12	3.8.2.3 TIRES  Change: Type VII, H.P. 41 x 14.5-16 To: Type VIII, H.P. 41 x 15-18
24	55-8-24	3.8.2.5 RETRACTING, EXTENDING AND LOCKING SYSTEMS:  Change paragraph to read:  Landing gear retraction shall be accomplished hydraulically, including opening and closing of doors in a maximum of 10 seconds at airspeeds up to approximately 200 knots indicated.
25	55-8-9	3.8.3 AUXILIARY LANDING GEAR (TAIL SKID)  Change: A skid of..... To: A skid or.....
25	55-8-17	3.8.4.1 DESCRIPTION:  Change: Shimmy shall not occur at any speed up to 160 knots To: Shimmy shall not occur at any speed up to 174 knots
90	55-1-19	3.19.5.1 (OXYGEN) GENERAL:  Delete last sentence: Convair shall comply....dated 3-27-58.
A-23	55-8-12	APPENDIX I-C, LANDING GEAR EQUIPMENT  Change: 8 Wheel, Main, Goodyear* 722.0 lb To: 8 Wheel, Main, Goodyear*  Change: 8 Tire, Main Wheel, (41 x 14.5-16), U.S. Rubber, HP22PR, 936 lb. To: 8 Tire Main (41 x 15-18) Type VIII  Change: 1 Box NLG, Anti-Skid Control, Hydro Aire, HO-273 To: 1 Box MLG, Anti-Skid Control, Hydro Aire, HO-273

Effect on Weight Empty: None  
Effect on Balance: None





EFFECT OF ICING DURING APPROACH FLIGHT CONDITIONS ON THE  
CV-600 PERFORMANCE

A wind tunnel test at CVAL on a .071 scale model of the CV-600 has been conducted to determine the effect of ice (geometry of which was defined by the Thermodynamics Group and represented 15 minutes in the approach condition) on the landing performance characteristics. The three configurations tested and the results which occurred are as follows:

I) Ice on all eight slats

- a) Drag is increased by approximately 2% at approach speeds
- b) Assuming Reynolds number effect on the iced configuration is the same as on the non-iced wing (probably optimistic), stall and buffet speeds are increased by 3% and 7% respectively.
- c) The ice formation causes pitch-up to occur at speeds of 1.2 to 1.3  $V_S$ .

II) Ice on the four outboard slats (two on each wing)

- a) Drag is increased by approximately 1% at approach speeds
- b) Stall and buffet speeds are increased by 1% and 2% respectively.
- c) A slight pitch-up trait exists at speeds of 1.2 to 1.3  $V_S$ .

III) Ice on only the outboard slat (one on each wing)

- a) Same as in II
- b) Same as in II
- c) A slight pitch-up occurs at speeds of 1.15 to 1.2  $V_S$ .

## REQUEST FOR CHANGE

C. AIR S. D. 5-1116

C S D ACTION &amp; RECORDS

3-4

R/C NO 5-20-14

SPECIFICATION ZD-22-005

REVISED

5-15-58

CUSTOMER

American

PAGE 1 OF 1

DATED

6-28-58

ORIGINATING GROUP (e.g., Body, Wing, etc.)

PAGE

96

PARAGRAPH

3.20.2.1

APPENDIX

PAGE

REVISED

7-5-58

## DESCRIPTION OF CHANGE

3.20.2.1

## ANTI-ICING OF TRANSPARENT AREAS:

Wing L.E. devices are to be de-iced or anti-iced in both the extended and retracted positions.

WEIGHT & BALANCE		PERFORMANCE		REASON FOR REQUEST	REQUESTED BY:	
<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO		AIRLINE	CONVAIN
+80.0	+61200			Customer request.		
WEIGHT	± INCH POUNDS	ITEM CHANGE				
CATEGORY						
<input type="checkbox"/> I SPECIFICATION CHANGE		<input checked="" type="checkbox"/> II MASTER CHANGE		<input type="checkbox"/> III STUDY ITEM		
EXPLANATION				OTHER (Specify)		
<input type="checkbox"/> A MANDATORY		<input type="checkbox"/> B SEPARATE QUOTE		<input type="checkbox"/> C NO ACTION		
CONVAIN APPROVAL				AIRLINE APPROVAL		
WORK STATEMENT (Convain Internal Data & Instructions)						

PROJECT ENGINEER

(Signature)



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. 70-22-005

DATE: \_\_\_\_\_

CUSTOMER: American Air Lines

MCL 60,001 DTD \_\_\_\_\_

CHANGE NO. 1

MODEL: 30-5 (Convair "600")

TITLE <u>Wing Leading Edge Devices, Anti-Icing or De-Icing of</u>		
ORIGIN <u>MFC No. 5-20-14, dated 28 June 1958</u>		
REASON FOR CHANGE: <u>Customer requested.</u>		
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>+80.0 lb</u>	OPER. WT. EMPTY <u>+80.0 lb</u>	<u>+61,200 INCH LB.</u>
EFFECT ON GUARANTEED PERFORMANCE: * <u>None</u>		
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		ENGINEERING APPROVAL
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____

*Cancelled*

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVALL: SD

American Air Lines  
Change No. 1

Title: Wing Leading Edge Devices, Anti-Icing or De-Icing of

Origin: RFC No. 5-20-14, dated 28 June 1958

Reason for Change: Customer requested.

Description of Change:

Page 96, Paragraph 3.20.2.1 ANTI-ICING OF NONTRANSPARENT AREAS:

Insert the following sentence after the first sentence:

"Wing leading edge devices shall be de-iced or anti-iced in both the extended and retracted positions."

Effect on Weight Empty:	+80.0 pounds
Effect on Balance:	+61,200 inch-pounds
Effect on Performance:	None